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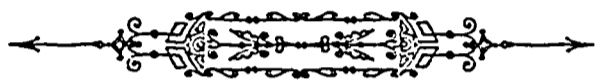
# THE RURAL CANADIAN.

AND FARM JOURNAL. With which is incorporated THE CANADIAN FARMER & GRANGE RECORD

Vol. VIII., No. 5.  
Vol. IV., No. 5—New Series.

Toronto, May, 1885.

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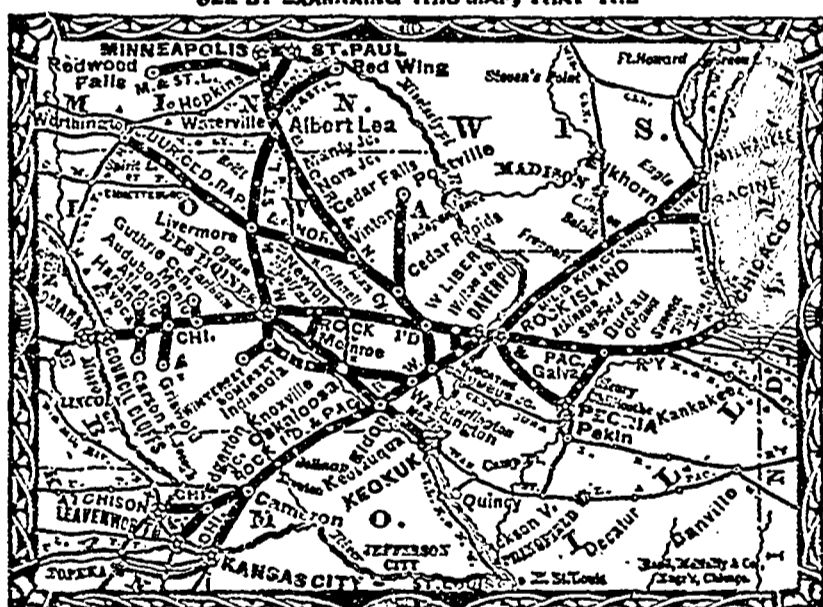
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# Rural Canadian and Farm Journal,

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## THE CANADIAN FARMER AND GRANGE RECORD.

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Toronto, May, 1885.

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### RURAL NOTES.

It is one of the peculiarities of oats that it delights in a cool soil, and the longer the season of growth the heavier is the grain. A period of comparatively low temperature, if accompanied with frequent rains, may be depended on to ensure a good yield of oats.

MANY farmers commit the folly of pasturing their meadows in spring. It is much better for the farmer who sees the need of providing such pasturage to buy fodder for his stock; he will save by it in a larger crop of hay, and he should learn from it the lesson of keeping fewer animals next year.

In pruning trees it is advisable to cut the branches off close to the base, as otherwise new shoots will grow, and further trimming will be required next year. Every cut should be made smoothly with a sharp saw, and in selecting the branches to be lopped off an eye should be had to the form of the tree when the work is done.

PROFESSOR ARNOLD states that it costs more to make milk from old cows than it does from young ones having the same milk producing capacity. The period of profitable milking does not terminate at the same age with all cows alike. Some hold out longer than others, but, as a rule, the best effects do not reach beyond the eighth year of the cow's age.

In a recent article in the *London Times*, English farmers are charged with being, as a whole class, cruel to their labourers, hard-hearted to the poor, and neglectful of charitable institutions. The *Agricultural Gazette* challenges the truth of these accusations, and charges the *Times* with making them for a political purpose—to stir up the farm labourer against his employer, and win him over to the side of the parson and the land lord.

ALTHOUGH there is a considerable fall in the prices of fat stock now as compared with two years ago, the situation is not discouraging. Even at present prices there is a fair margin of profit for feeders, and especially if account be taken of the means cattle-feeding affords for enriching the land. One good result of the attention given to this industry is the very general grading-up of cattle, our farmers having been taught that for the export trade success was only possible with the larger and better breeds, and a great mistake will be made if the cattle are allowed to degenerate.

No other fruit is more dependent on good culture for quality and quantity of product than the black currant. The young plants grow fast, they bear a crop the second year after planting, and they continue productive for many years. They should be placed in the ground not nearer than six feet apart, and the ground between should be cultivated and kept free from weeds. If, in addition to this, all canes of over two years old are cut out, leaving six or seven of the two-year-old ones, a good crop may be reasonably looked for. The bush should be pruned so as to give it a cup-shape form—open centre.

THE chief value of fall rye is for soiling. It is ready for cutting in May, and will last on into June. As the crop is taken off, strip by strip, the ground may be sown with some other—with sweet corn, mangolds, etc. Or it may be sown with a mixture of oats and peas, and in five or six weeks this will be ready for use, to be followed with say a crop of millet. By this plan a farmer may double his stock, make a large quantity of manure, and greatly enrich his land. If the soil be suitable, there is perhaps no other crop from which so large return may be received as from mangolds, and they are valuable for winter feeding, especially for milk cows.

IN Denmark there is hardly a farmer who is not a member of an agricultural society, and agricultural societies in that and other northern countries of Europe are almost fatherly in their care of the farmers. Especially is great attention paid to butter making, and the efforts of the societies are being constantly directed towards educating every farmer and every farmer's wife and son and daughter in the best methods. The result is that their butter is of extra good quality and commands the highest prices in the market. Holland at one time had the name of producing the best butter in the world, but owing to the neglect of education its butter is now one of the worst.

THE Honorary Entomologist of the Royal Agricultural Society of England feels, no doubt, that measures should be taken to check the enormous increase of sparrows. From careful observations in different places, extending over a period of one to fifteen years, he does not find any diminution of insects round the farm buildings where the sparrows generally resort, but he finds they have been observed in many cases to drive away true insect feeding birds. Sparrows can and do eat some amount of insects, if other food is short, but he considers it to be proved that by choice they are almost wholly grain and vegetable feeders. That, also, is the general opinion among the students of natural history here.

AN experiment in feeding whole corn ears ground into fine meal and clear cornmeal is reported by Prof. Shelton, of the Missouri Agricultural College. He took ten Texan steers and fed five of them on one kind of fodder and five on the other. The total quantity of corn and cornmeal fed was 11,565 pounds, and of cornmeal 11,612 pounds; and in the case of the former the total gain was 1,580 pounds, and of the latter 1,460 pounds. That is to say, the average gain from feeding corn and cornmeal was twenty-four pounds per annum more than from feeding cornmeal during the period of the experiment. It is not, however, to be inferred that the feeding property of corn-cobs is to be measured by this result, but rather that the mixture is more favourable to digestion.

WITH the increased attention that is being given to dairy farming in Ontario, it is desirable that larger areas of land be put under permanent pasture. It is not possible to have good grazing for cattle on land that is broken up every two or three years for grain crops, nor, indeed, is it

hardly possible to get first-class grazing except off natural pastures. But with proper treatment art may very nearly approach the perfection of nature, and the way to secure good, permanent pasture is to get the land clean and in good heart, sow the right seeds and enough of them at the right time, and treat the land liberally ever after. The land should be prepared for seeding with repeated rolling and harrowing, pastured lightly for the first year, and top dressed from time to time with good barnyard or artificial manures. If this course be followed the return cannot fail to prove satisfactory.

A VALUABLE paper on riding and driving horses was read at a recent meeting of the London (Eng.) Farmers' Club, by Walter Gilbey, of Elsenham. The lack of success in breeding, Mr Gilbey attributes to the want of care in the selection of young mares of sufficient size, and sacrificing too much to speed, so that in the craze for pace, size and substance have been disregarded. To remedy this state of things and breed horses that will repay their owners he advises: (1) The judicious blending of the qualities of the thoroughbred stallion with those of the well-formed draught mare possessing size, frame, constitution, flat legs and high courage, and (2) From these half-breed mares, so obtained, cross breeding can be resorted to by the selection of the thoroughbred or hackney, and thus a stock of riding and driving horses available for general use will be secured, possessing improved size, strength and constitution. Mr. Gilbey's advice deserves attention in this country as well as in England. There is a growing demand here for horses of this class, especially in the large cities, and they will always bring good prices.

IN a paper on butter and its adulterations, the chemist of the Agricultural Department at Washington states that in respect to chemical and physical composition good butter should present the following characteristics: (1) The water contained in it should not exceed 12 per cent., (2) Salt should be about 3 per cent., but this varies from 1½ to 8 per cent., and its chief use is one of taste; (3) The curd or caseine should not exceed 1 per cent., and the best butter contains less than this amount; (4) The specific gravity of butter-fat is about 912, water being taken at 1,000, whereas tallow and lard have a relative weight of 900 or less. A butter affording a fat whose specific gravity is below 910 is of doubtful genuineness; (5) The quantity of alkali required to saponify the fat of butter (that is, to convert it into soap) is markedly different from the quantity required to affect the common butter adulterants. The saponation equivalent in pure butter ranges from 249.5 to 239.8, while in oleomargarine it rises to 284.7. If the number should fall under 250 it would be safe to call the sample genuine butter. (6) Pure butter contains acids soluble in water to the amount of 5 per cent., while in butter substitutes they rarely go above one-twentieth of one per cent., (7) Pure unmelted butter when viewed through a selenite plate by polarized light presents a uniform tint over the whole field of vision, but butter substitutes, on the other hand, give a field of vision of mottled appearance.



## FARM AND FIELD.

FOR THE RURAL CANADIAN.

### WALKS AND TALKS AMONG THE FARMERS.—NO. XII.

"CAN we milk a couple more cows?" asked a farmer of his wife the other day in my hearing. He then went on to say that one of his neighbours had offered to sell two of his cows at a low figure because he was running short of fodder. A great many cattle of all sorts and sizes have been forced into the market, and sold at unremunerative prices within the past few weeks, owing to scarcity of food. In some sections of the country, much of the stock has been on short commons, and will come through the winter very poorly. Many young creatures have received a stunt in their growth which they will never get over, for growing animals must be kept steadily on the gain or they will not do their best. It is rumoured that in some of the poorer sections of the country many cattle are dying of starvation, and that some have been slaughtered to prevent their starving to death. Of course, all this is attributed to the remarkably severe and long winter through which we have just passed.

Such a state of things furnishes much food for reflection. At the first blush it starts the question whether the country is over-stocked with farm animals. To this question a prompt and emphatic negative reply must be given. It is safe to say the country could carry twice the live stock it has, to the advantage of all concerned, under a proper system of management. The keen competition we now have in the grain market, and the large demand for well-fatted stock, are pretty clear indications that a wise policy dictates the multiplication of the live-stock up to the full capacity of our farms. The impoverishment of the soil consequent on excessive grain-growing is another pointer in the same direction. A stern logic is teaching us the necessity of making the production of stock the chief feature of our agriculture, and it cannot be too deeply engraven on the mind and in the memory of our people that we must sell the products of our lands less in grain bags and flour barrels, and more in living hides and pelts. Let the crops we raise go to market on all fours. "No stock, no manure; no manure, no crops."

It is undeniable that many farmers marketed hay early in the winter at ridiculously low prices, and having miscalculated the length and severity of the season, have had to buy at twice the price for which they sold. They will tell you no man could foresee what a winter we were going to have. But did not some of them believe the weather prophets, who for three years past have been predicting a mild winter, and if they only stuck to that prediction long enough, will make a correct guess at last? A prudent man will calculate in view of possibilities, and not sell himself down to the lowest quantity of fodder that will carry his live stock through a moderate season, when he knows that we are at any time liable to have a long and extreme season. The good old book which has a lesson for every wrong tendency in human nature contains this wise remark applicable to the case in hand: "A prudent man foreseeth the evil and hideth himself, but the simple pass on and are punished."

The worst feature of the thing is that unoffending, dependent, dumb creatures have been punished, many of them very severely. A man must have a hard heart who does not feel mean and miserable when he sees poor, helpless ani-

which it is his duty to provide. It is enough to bring tears to one's eyes to witness the mute, patient behaviour of cattle under these circumstances. There has been in our locality a neglected cow going up and down the road all winter, waiting and watching for a bite or a sup, and of all the samples of meek and quiet suffering I ever saw, hers has been the most affecting. If human law fails to punish such instances of cruelty to animals, it is hardly likely the benevolent Creator will hold them guiltless. Some people will have a serious account to face one day because of their treatment of the lower tribes of animals which have been committed, not to their irresponsible control, but to their responsible care, by Him who is Maker both of man and beast. "A righteous man regardeth the life of his beast," is the true reading of that text which is usually quoted: "A merciful man is merciful to his beast." It is not mercy, but justice, to give them enough to eat.

But to come back to the business aspects of the case. I insist upon it that any farmer is foolish to sell hay at \$6 or \$8 per ton, no matter how abundant it may be, or however sure he may feel that he has plenty to suffice for his own use. It is worth more money than that to feed, and if he has not stock enough to consume it, it will pay the owner of it to buy more, even if he has to do so on credit, for which there are usually opportunities enough at farm auctions, though it is not at these places that the best bargains may be looked for. Better borrow a little cash and buy up some additional stock than sell hay at such prices as hundreds of tons were sold for at the beginning of the past winter. Better indeed to keep the hay for a higher market, which is pretty sure to come before very long. It would have been quite a bonanza to many farmers, if they had held on to the hay they sold last fall, for if they had only done so, they would have doubled their money.

I STARTED this topic, however, chiefly for the purpose of referring to the feeding value of straw, and the enormous waste of this product which is going on all over the country. It would be too long a task to recount the calculations and estimates which have been made in regard to the nutritious properties of straw: suffice it to say, that all competent authorities condemn the practice of using good, bright, clean straw merely for bedding. Only the refuse ought to be employed for this purpose, and material not available for stock food should be collected to prevent consumption of straw for bedding purposes. "Doctors differ" as to the precise food value of straw, as well they may, but all agree that it is too valuable for that purpose to be consigned directly to the manure heap. On most Canadian farms there is no thought of its use for any other purpose, though it is well known that with the addition of roots, cattle can not only be sustained, but fattened on this much neglected and greatly wasted fodder. "Wifful waste makes woful want," as the experience of the past winter has proved in the case of multitudes.

THE only way to make the most and the best of the straw supply in this country is to have sufficient barn-room to accommodate it. There is no method of out-door stacking by which it can be properly kept so as to render daily and economical feeding of it practicable. Of all wasteful methods of treating it, a barn-yard straw stack is the most objectionable. It will pay to provide shelter for it, and those who are planning for the erection of new barns during the coming summer, as no doubt many are, cannot be too earnestly advised to think of the straw and plan for having

it always under cover—treating it in fact in the same manner as hay. Some authorities consider it preferable to swale hay, and others rate it as within twenty-five per cent. of good meadow hay, i.e., 2,500 lbs. of oat straw is regarded as the equivalent of a ton of hay. If these ratings are anywhere near the mark, it is certainly wise policy to provide barn room for straw, and to protect it from needless and wanton waste.

WHILE referring to barns, a word or two may be added, suggested by the recent inspection of a barn. In building a barn do not stint the stone basement storey. Give it head room, and have the doorways well up from the level of the barn-yard. I was in a basement lately where full-sized cattle could not throw up their heads without striking the floor above, and where at the close of winter, the manure accumulation just outside the doors was so high up that not the cattle merely, but their attendants, could not go out and in without running the risk of dangerous falls. Yet another point, why are basement and other stables—even horse stables—nearly, if not quite destitute of windows? If there is any light in them, it is usually only just enough to make darkness visible, and people go groping about among their creatures, or else, the coldest day in winter, the door must be wide open, to the discomfort of man and beast. How would we like to be immured in darkness all day long? It is bad for the eyesight of animals, and many horses learn to shy for no other reason than that they are kept in dark stables.

WE have had a long wearisome winter, and some farmers' families have been hard put to it to while away the time. To spend from eight or nine o'clock at night to six or perhaps seven o'clock "i' the mornin'" under the blankets and quilts, is to consume more time in bed than health requires. Seven hours for men and eight for women—a sufficient difference for the husband to rise, make the fire, and get the house warm in readiness for the "weaker vessel" to prepare breakfast—are what physiology and hygiene prescribe. So there needs employment for some evening hours. Reading alone will not do, for you soon get sleepy. I was at a farmer's house lately where the father and mother play draughts—or did until the Mrs. beat the Mr. so uniformly that there was no fun in it, the eldest girl played the organ-melodeon, the eldest boy the violin, a younger daughter performed on an instrument the name of which I have forgotten, while a younger son blew the piccolo. Then there were carpet balls, parlour quoits, parlour croquet, and I suppose dominoes, and possibly other games. Young people are fond of what they call "fun," and a little of it now and then is not bad for old folks. An hour or two of some laughter-provoking amusement is a better preparation for a good night's rest than a drowse beside the fire. "Work" and "play" should alternate in some form. "All work and no play makes Jack a dull boy," it also makes his relations dull. "All play and no work," is not to be commended either. There is a provision in our nature for both, and neither can be neglected without detriment. To wisely apportion the two should be the aim of all. W. F. C.

FOR THE RURAL CANADIAN.

### PERMANENT PASTURE.

THE prevailing practice in this country is to seed down with timothy and clover only, and, under favourable circumstances, large crops of these are often raised. But the average obtained is no more than a ton and a-half or two tons per acre, while with the same culture and by sowing a greater variety of grasses there should be

double that crop. A very large item of expense in farming accounts arises from the constant seeding of meadows with timothy and clover, as if they were the only fit grasses for hay. There are other grasses, not only as good as timothy, but also possessing a power of perseverance and of producing a good sward, thereby protecting the timothy from upheaval by frost. Indeed, farmers in Canada cannot expect to succeed with permanent pastures unless they follow the lead of the English authorities, who recommend in their meadows, mixtures of grasses and clover. The principal authority advises the sowing of some twenty five to thirty varieties, so that under any circumstances some of the grasses will be growing. In this country why not sow meadow fescue, rye grass, red top, Kentucky blue grass, sweet vernal, and others that might be mentioned. By so doing a good heavy hay will be produced; the aftermath will be thick, and the sward less liable to heave in winter, while the timothy can be held in the ground for many successive years, resulting in a permanent meadow and pasture if desired; thus avoiding the extra labour and expense of constant seeding. In this respect—permanency—very few of our Canadian farmers seem to realize what a perfect meadow is. They do not give the required preparation of the ground, the proper quantity of manure, the adequate amount of seed, or the right varieties of grass to make permanent and profitable meadows. In the old country this business is well understood, and practised liberally; and deep verdure and luxuriant herbage is the reward. It is an undisputed maxim with English farmers that grass is the great conservator of fertility. Until a change comes over the views of farmers in this country in regard to meadows, we shall continue to have poor pastures, so common now in our country; and yet the greatest need of our agriculture is permanent grass lands.

Our grass seedings are merely makeshifts and incidents in a short rotation, in which the sod is ploughed under, to begin a new course; and in this case the sod is of no more value than the manure and labour given to its preparation. We cannot get something out of nothing, and if we want a grass field to last twenty or thirty years, as it does in England, we must lay out in its preparation more work and value than for one which will be exhausted in three years—the average length of time which a meadow lasts in Ontario. X. Y. Z.

FOR THE RURAL CANADIAN.

### BEAUTIFY THE FARM.

It is a pity that so many of our farmers pay so little attention to ornamenting their farms, simply because there is no visible return of profit in some shape. Shade trees, hedges, flower beds, lawns, and groves are in many instances considered nuisances, and, if tolerated at all, it is in deference to the urgent appeals of the female members of the family. This dislike of the ornamental is gradually dying away; but, like other advances in farming, the taste for it grows slowly. The taste for beauty, while imperfectly developed in many minds, is more or less inborn, and is pretty sure to assert itself when the means are at hand. In the case of the farmer, as he becomes more prosperous, it often happens that in fixing up the old house or building a new one it is probably placed in a pinched up yard, instead of leaving around it a large and well laid out garden, with flower beds and a nice lawn, the whole surrounded by ornamental shrubs. Then, again, in many instances even when they have well laid out grounds in front of the houses, with a picket fence facing the road, the remaining front of the farm is altogether neglected, the sward just as it was left by nature before the land was cleared. No effort what

ever is made to improve its appearance, whereas this could be done at a very trifling cost, by just ploughing the sward, levelling the hillocks, seeding the whole down again, and planting a row of trees with here and there an evergreen. Depend upon it, that if ever the property has to be disposed of, a purchaser will be more readily found for a farm that looks pleasant than one that is void of any ornament. RUSTICUS.

FOR THE RURAL CANADIAN

### THE MANURE HEAP

During the heavy rains the ordinary barnyard presents anything but an inviting appearance. The excessive rains deplete the stock of manure and render the yard almost impassible. From the present method of storing dung, the liquid manure is often washed into the side ditch of the farm lane; and, perhaps, is emptied into a creek, thus being removed from beyond the reach of plants that would be greatly benefited by it. There is no leak on a farm that can compare with that from a badly constructed and poorly kept barn yard. At a recent meeting of farmers one of the speakers, a practical farmer, said that it was as important to build the manure heap properly as it was to construct the straw stack. A ditch should be made around it to catch the liquid manure which should be from time to time ladled on to the heap, and thus prevent fire-fanging and greatly assist the rotting of the manure.

A barn-yard, whether on a hillside or on a level, with all the rains free to fall on the dung heap, should be so arranged as to lose none of the drainage. In the older settled portions of Canada successful farming greatly depends upon the quantity of manure that can be made on the farm. It is, therefore, incumbent that none of it should be permitted to go to waste. If possible, manure should be kept under cover, away from excessive moisture; but to the great majority of farms this method of storing is impossible. Watch the manure heap, let there be no leakages in the barn-yard. B. L.

Co. Middlesex, Ont.

### RAISING CARROTS.

Carrots are valuable as a substantial food for stock and cattle. Professor Mapes maintains that they are useful to horses not only for the nourishment in themselves, but because the acid they contain enables the animal to digest and assimilate food elements which would otherwise pass off unused. A few carrots morning and night fed to a milch cow will improve the quality and colour of butter made from her milk. The root is a large bearer, an acre of ground yielding from 500 to 1,000 bushels.

Carrots grow well in deep soil which has been made fine by successive ploughings. The manure should be spread broadcast on the surface before the last time of ploughing. Harrowing should be done twice, and before the last time the soil should have a dressing of compost, which will insure a vigorous start for the carrots. The field should be laid out in ridges made by ploughing through in straight lines, and on them the seed is sown, which should be fresh and about five pounds to the acre.

Peter Henderson says that this is a particularly safe crop for the farm, and we can never go far wrong in growing plenty of it, as it is a hardier root than beet, and can be left until late in the fall and dug at leisure times, but always before there is danger of being frozen in, and will always bring a fair price in market, rarely selling for less than \$1 per barrel. The average crop on suitable soils is about 300 barrels to the acre.

### HOUSEHOLD HINTS.

Do you know that milk which has turned or changed can be sweetened and made fit for use again by stirring in a little soda?

A suggestion is given for cooking rice to be eaten with meat. Tie the rice in a strong cloth loosely, and boil in salted water one and one half hours; when cooked it will be firm enough to cut with a knife.

A slightly damp cloth rubbed over a dusty carpet brightens it wonderfully and gathers all the dust. This is an excellent way to cleanse the floor of an invalid's room, where noise and dust are objectionable.

To polish brass, use ordinary whiting or chalk and a damp cotton or woollen cloth. If the metal is stained or tarnished, then use rottenstone and oil on a cloth, and finish with whiting for a gloss. If corroded and blackened, use oxalic acid in water with the rottenstone, instead of oil.

An agreeable flavour is sometimes imparted to soup by sticking some cloves into the meat used for making stocks; a few slices of onions fried very brown in butter are nice; also flour browned by simply putting it into a saucepan over the fire, and stirring it constantly until it is dark brown.

TABLE scarfs are quite handsome, if made from three pieces or strips of broad ribbon of different, or at any rate contrasting colours. Tassels or fringe should hang from the ends of the scarf, and the lining should be a brilliant colour. A vine or flower sprays or scrolls would be an agreeable addition to the ribbon.

TO CURE HOARSENESS.—When the voice is lost, as is sometimes the case, from the effect of a cold, a simple, pleasant remedy is furnished by beating up the white of one egg, adding to it the juice of one lemon and sweetening with white sugar to taste. Take a teaspoonful from time to time. It has been known to effectually cure the ailment.

POTATO cakes are extremely nice for breakfast. To make them, take one pint of mashed potatoes, one pint of flour, two tablespoonfuls of butter, a little salt, milk sufficient to make a thick batter, and half a teacupful of fresh yeast. Mix the ingredients, and let the batter rise until it is light; then bake in muffin-tins or gem-pans. Serve in a vegetable dish.

RUST can be removed from steel as follows: Rub the article with kerosene oil and leave it to soak for a day. Then procure fine flour of emery and mix with kerosene oil and scour the surface, finishing with rottenstone. To preserve from rust, heat the steel and rub paraffine on it, and when cold polish with a cloth dipped in paraffine. No steel articles should be kept in a cellar or damp place, but in a dry attic or closet.

A PRETTY wall ornament can be made by cutting two crescents out of paste-board, covering one with bright velvet or satin, and which can be painted or embroidered any appropriate design, and sewing the two together, leaving open the seam on the inner curve of the crescent. Fasten to the wall in a graceful position, and in the inner curve insert the stems of grasses, crystallized or otherwise, autumn leaves, etc. The effect is quite pretty.

WHEN one is tired of beefsteak cooked in the ordinary way, it is very nice smothered. Prepare a seasoning of bread crumbs—regulating the amount by the quantity of steak that is to be dressed—mixed with a very little minced onion, a small piece of butter, pepper, salt, and summer savoury, spread it on the steak, roll each piece separately, and tie with a string. Place them in a saucepan, with a slice of pork and half-a-pint of water, and stew until tender, which can be easily ascertained by plunging a fork into the meat.

## GARDEN AND ORCHARD.

FOR THE RURAL CANADIAN

## WALKS IN THE GARDEN.—V.

THE present season is the most backward of any in my experience. I have never failed of getting the seed of early vegetables sown in the first week of April, but at the present writing, the middle of the month, the snow still lies to some depth on the soil, which is frozen for several inches down. It may be that there will be a compensation in the more rapid growth of vegetation when it does start, but as gardeners are notoriously good grumblers, it is only natural that a little of it should be indulged. By the way, a friend of mine tells me that in 1856 he teamed a quantity of goods from Woodstock on sleighs on the 21th April, while a Galt paper notes that in 1845 there was good sleighing during the entire month.

ONE of the results of the late spring will be that all the work will come together, and those who have been forehanded in trenching their ground in the fall will find more than the usual advantage in having so much less labour to prepare the soil for seeds. When nothing else can be done it is well to look after the mouths of the drains, and see that they are free for the water to make its exit. No matter how thoroughly land is drained, it is useless unless the water can get away, and from observation I take it that this very simple precaution is often neglected—that a good many people think their whole duty is done when the tiles are laid down. Autumn leaves and other rubbish very often get into the drain mouths and prevent them from working.

TO those who have only a small plot of ground at their command it is of great importance to make the best use of it, and where possible to grow several crops on the same space. This is easy enough, but takes lots of fertilizing material, for it is an axiom in gardening, that to make the land produce you must feed it well. The land on which early peas are sown is the place for celery when the straw is removed, which is plenty early enough to plant it. Tomatoes can be planted in rows five feet apart between the rows, and will be out of the way before the earth is needed to hill up the celery. The same idea followed out with other vegetables will accomplish the end aimed at. Another advantage of double or treble cropping is that the weeds have no chance. If the ground where early vegetables are grown is left after they are taken off, it quickly grows up with weeds, and becomes a nuisance instead of a benefit as it might be.

MOST people who grow strawberries to any extent plant out a new bed every year so as to always be sure of a supply—the profitable bearing season not extending over two or three years. The best crop to precede strawberries is potatoes, on account of the thorough cultivation they require which makes the land clean, a prime necessity for successful berry-growing. Where the strawberries are going to be planted there is the best place for early potatoes, and there is no better time for setting out strawberry plants than just when the potatoes come off. With potted plants set out towards the end of July or beginning of August, a very fair crop can be had the next year, which is out of the question if the planting is left till late in fall or next spring. Life is too short and land too valuable to allow it to remain unproductive for a whole year for want of a little knowledge or forethought.

Potted strawberry plants have come greatly into

fashion of late years, and they deserve it. The plan is to sink two or three inch pots, filled with rich, mellow earth between the rows, and place a runner on each, anchoring it with a small stone. The runner will take root, and in a few weeks fill the pot with a net-work of fibres, being nourished by the parent plant, and can be planted out without going back a day. The potting is best done about the time the berries are over—say the last week in June, or first in July. There is no work done in a garden that pays better for the small time it takes.

THE soil for strawberries should be as light and as rich as it is possible to make it. A sandy loam is the natural habitat of the strawberry, and clay ground should be brought as near that as possible. Wood ashes are invaluable, not only lightening the soil, but supplying it with potash in an easily assimilated form. Not a particle of ashes, leached or unleached, should be wasted. Well-rotted manure should be dug in with a liberal hand. The strawberry is a very gross feeder, and responds promptly to the generous use of fertilizers.

CABBAGES and cauliflowers have three or four very active enemies—one or the other of which has caused a great many to give up growing them altogether. One of these is the maggot which burrows in the root, and is not discovered till the mischief is done and the plant is killed. One remedy is when taking the plants out of the hot-bed or cold frame, to have a dish of water near by, and wash the roots before setting out—thus killing the eggs if they have already been deposited, and then to put a roll of stout paper about the stem when planting out. Both of these are of advantage. The fly is a great nuisance, but may be prevented from doing any mischief by shading the plant with two shingles on the south and east sides. The flies never work in the shade. The green worm eats the cabbage after it is formed, and is a disgusting pest. Emulsion of kerosene soap, diluted with water and sprayed on, will kill the worms, but many people are afraid of flavouring the vegetable. Road dust is good, but if there are only a few plants perhaps hand picking is the most satisfactory. In wet seasons the slug is always busy, but salt is sure death to him, dissolving him into slime instant.

A GOOD authority says that as between wood ashes and salt for asparagus beds it would prefer the former. This tallies with my experience. I never could see that salt did any good except to kill the weeds, and that is a slovenly reason for using it. The fact is, there has been a great deal of humbug about growing asparagus, which has prevented a good many people from enjoying this most delicious of all vegetables. A good asparagus bed ought to be as common as a rhubarb patch, and everybody has that.

THOSE who have not used the kerosene emulsion as an insecticide should do so this season. It is the most valuable insecticide I know of. With it and Bubach or California pyrethrum, any and all of the insect pests can be defied. The emulsion is made by putting a couple of pounds of hard or soft soap into a kettle and heating to a boiling point, then stirring in a pint of common kerosene, mixing them thoroughly. They will stay mixed and can be kept any time. This mixture can be applied with a syringe or force pump, and will kill rose bugs, which are proof against almost everything else. Bubach is applied with a small bellows, sold for the purpose, and will kill any insect it touches while comparatively harmless to animals or human beings. It is much safer than hellebore for currants or gooseberries.

TOMATOES are probably the best appreciated vegetable in the garden, but the only drawback is that they come too late in the season. If one will only take the trouble, it is easy enough to anticipate the season by two or three weeks at least, and to have the luscious fruit when the price is too high in the market for ordinary purses. The plants should be forced in the hot-bed, and transplanted into a warm border sheltered from the north and west winds—a west wall or fence is the best. A miniature cold-frame—a soap-box will do very well—should be put around each plant, and covered with a sash to keep out the cold at night and intensify the sun's rays in the day time. When all danger of frost is over the boxes are dispensed with and the vines trained to the wall as espaliers. The trouble will be rewarded with rich clusters of ripe red fruit, while the vines treated in the ordinary way will hardly be more than in blossom. Y.

FOR THE RURAL CANADIAN.

## STRAWBERRIES.

BY W. H. HILBORN, ARKONA.

THE cultivation of strawberries as a market crop is receiving more attention every year, and will continue to do so, as there are but few of our markets well supplied with good fruit, well grown, and put up in the right shape.

IT has been the custom with fruit growers to plant only one or two varieties, nearly always the Wilson, for main crop. I admit the Wilson is a splendid market sort, but it is a great mistake to depend on any one or two kinds. The Wilson has some very serious defects; the greatest is that it blooms very early in spring, and the blossoms reach up above the leaves, hence are more apt to be injured by spring frosts than many other varieties. So many people grow the Wilson, that the strawberry crop mostly goes to market with a rush, and runs the prices down.

THE aim of the most successful growers is to extend the fruit season over as great a length of time as possible, as the strawberry is a fruit that is mostly used in its fresh state. The greater length of time given consumers, the more fruit can be sold, and fewer crates, boxes, pickers, etc., are required to market a crop, thus reducing the expenses.

IT is impossible to give a list of varieties that will suit in all localities, on all soils, and with every mode of culture. The only sure way to find out the kinds best suited to your own individual wants is to try a number of the best well-tested sorts.

THE following varieties will be the best selection I could make out of over sixty kinds I have fruited, and there are but few places in the Dominion where they will not succeed.

EARLY CANADA is the earliest variety, where it escapes the spring frosts. It blooms first of any; hence it is not safe to plant largely of this variety, as it frequently gets caught by spring frosts; whenever you can get a crop, it is very profitable. When the first blossoms do get killed by frost, those coming out later will not be as early as *Crescent Seedling*. This plant is a good grower, and productive.

CRESCENT SEEDLING is the most profitable early strawberry yet introduced. It is also one of the safest to plant, as it blooms a little later than the Wilson, and the blossoms are well protected by the leaves. It will mature its fruit in less time, after blooming, than any other well-tested variety; it ripens several days ahead of the Wilson, and will yield more fruit.

NEXT in order of ripening are the *Wilson* and *Daniel Boone*. Both are very profitable for their season.



DANIEL BOONE is of better quality than most market sorts. I have during the past season gathered fruit from matted rows, picking all fruit that was ripe. The berries would average larger than any other sort I have ever grown. It does well on both sand and clay loam.

JAMES VICK.—The fruit of this variety will average fully as large as the *Wilson*, and produce more fruit. By keeping it in narrow rows, and giving it good cultivation, it will produce a wonderful crop of berries, of fine regular form. It ripens so much fruit at once that they can be picked very fast. The plant is a model of perfection in growth and hardiness; it is doubtful if it have an equal in this respect; ripens quite late, a good market sort; but if left to grow in very wide rows, it does not bring its crop to perfection, as it sets more fruit than any other sort I have ever grown.

MANCHESTER is a splendid late variety, for either home use or market, of good quality, large size, regular form, a good grower, and very productive. It does well on nearly all soils, and should be in every plantation.

On good strong clay loam, *Mount Vernon* and *Cap Jack* are both very profitable late market berries

### THE APPLE ORCHARD.

The rural home can not be complete without its apple orchard. The various excellent fruits considered in this series have their seasons in a good, wholesome diet and their places in the rural grounds, but the apple is adapted to all seasons and completes the cycle of the year. No special cold-storage is required in Western New York to enable the intelligent farmer to keep some varieties of apples until apples come again. Scientific growing, picking, assorting, handling and cold storage, where protected from sudden changes of temperature, will keep Greenings, Spies, Baldwins and several varieties of Russets until early harvest apples are ripe.

A thriving, regular, well-kept apple orchard in the rear of the rural buildings adds to the beauty as well as to the luxuries of the rural home. It also serves as a wind-break, arresting the force of sweeping, chilling winds. Whatever may be said as to the expediency of planting market orchards there can be but one opinion as regards the advisability of growing apples in abundance for family use.

In laying out a family orchard, have an eye to appearance as well as utility. Make the rows a good distance apart, not less than forty feet each way, and as straight as you can make them, and plant straight-bodied, thrifty trees, four or five years old. Stake trees firmly, inclining slightly towards the prevailing winds. Keep them well cultivated, mulching in dry weather, growing some hoed crop, such as corn potatoes, beans or roots, until they have arrived at bearing age, and, for the plant-food taken from the soil to nourish the trees and the crops grown among them, make full restitution in fertilizers.

When the orchard has come into bearing, as it is a family orchard, it should be a clean, pleasant grove for ladies and children, as well as men, to walk in—a kind of family park. This it can not be, if kept broken up mellow, or if pastured and rooted up by swine. We would, then, prepare it well, roll it down smooth and seed down to grass. To keep the grass short and fallen fruit picked up clean, we would pasture with sheep. If the trees should show any lack of proper nutrition, we would top-dress in autumn, with fine stable manure and in spring with commercial fertilizers. In this way we think the convenience and pleasure of the family could be best subserved.

As to the varieties that should be grown in a family orchard, they should be more numerous and of better quality than in a market orchard. While for market we would grow those that are most certain bearers and most productive—good saleable shipping fruit—for family use we would grow those ripening in succession through the season and of quality that will please. As far as possible we would select those combining good quality and attractive appearance. A dish of smooth, well-shapen, highly-coloured apples on the table for dessert, has a favourable effect upon the æsthetic nature.

Among the desirable sort for a succession the year round, we would name:

SUMMER.—Early Harvest, Early Strawberry, Primate, Red Astrachan, Summer Rose, Tetofsky, Golden Sweet and Sweet Bough. The Golden Sweet would be mainly for baking.

AUTUMN.—Chenango, Fall Pippin, Fameuse, Gravenstein, Maiden's Blush, Oldenburg, Porter, St. Lawrence, Stump and Twenty Ounce, Jersey Sweet, Munson's Sweet and Pumpkin Sweet.

WINTER.—Baldwin, Esopus Spitzenburg, Hubbardston, Jonathan, Mother, Newtown Pippin, Northern Spy, Peck's Pleasant, Pomme Grise, Red Canada, Rhode Island Greening, Roxbury Russet, Swaar, Tompkins King, Wagener, Westfield, Seek-No-Further and Yellow Bellflower. Lyman's Pumpkin Sweet and Tolman's Sweet. Baldwin, Newtown Pippin and Roxbury Russet would be used mainly in spring, while several others would be used partly in spring. From such a list of excellent apples the tastes of all the members of a large family would undoubtedly be satisfied.

### LONGEVITY OF SMALL FRUIT.

In answer to an inquiry—the number of years which small fruits will continue to bear before renewal, depends greatly on soil, treatment and kinds. Strawberries, under ordinary management, last two or three years, and then fail; but on strong and rich soil, with the runners kept cut, they often do well for twice that length of time; and some varieties, as the Cumberland, continue longer than the *Wilson* and others. Raspberries, not enriched, run out in a few years; but with repeated manuring, good culture, and careful pruning, they will last from six to ten years. Under similar management, we have currants and gooseberries which have borne well for more than twenty years. On a thin, sandy soil, none of them will bear so long as on a strong loam.

### WASH FOR BORERS.

Professor Cook says that a carbolic soap wash has with him proved a very effectual preventive of radish maggots and apple-tree borers. His formula is as follows: To two quarts of soft soap I added two gallons of water; this was then heated to a boiling temperature, when one pint of carbolic acid (in a crude state) was added. This mixture is then set away in a barrel, or other vessel, and is ready for use as occasion may require. One part of this liquid is then mixed with fifty parts of water and the plants sprinkled or trees washed with it. This is worth remembering.

ALL trees and shrubs are hardier as they attain size. This is not owing to mere age of wood or ability to resist freezing, but ability to resist thawing and drying. Such trees, when quite small, are frequently ruptured the whole length of the body by thawing in a warm winter's day. A tender tree is hardier for growing in an evergreen hedge, or in a group of evergreens.

### CREAM.

The pipings of the frogs I hear  
Through all the night so shrill and clear,  
Peep-peep! no sleep. Peep-peep! peep-peep!  
Ye minstrels of the swampy deep!  
How oft has proved your song, peep-peep!  
A lullaby for boyhood's sleep.

A WISE farmer never quarrels with his wife on washin'-day.

Does a man who marries a girl named Elizabeth, win a bet?

WHAT are the laziest things about a farm? The waggon wheels; they are always tired.

A cow in Moline, Ill., got drunk by eating distillery grains. Was she corned beef then?

CURIOS how quick a man finds out he loves a girl if some one else goes with her just once.

Happy the man who tills his field,  
Content with rustic labour;  
Earth does to him her fulness yield,  
Hap what may to his neighbour.  
Well days,—sound nights! Ours can there be  
A life more rational and free?

SOME women spend a great deal of time trying to beat the steak tender, and some men spend more trying to beat the bar-tender.

KIND words do not cost much. They never blister the tongue or lips. Who has ever heard of mental trouble arising therefrom?

BOWMANVILLE *Statesman*: THE RURAL CANADIAN AND FARM JOURNAL for April is an excellent number, being an improvement on any previous one.

COUNSEL—"Then you think he struck you with malice aforethought?" Witness—"You can't mix me up like that. I've told you twice he hit me with a brick."

"Mamma," said a little girl, "I like the donkey, but I don't like to hear him donk!" A little boy's comment was, "Oh, hear that horse with the whooping-cough."

The world goes up and the world goes down  
And the sunshine follows the rain;  
And yesterday's sneer and yesterday's frown  
Can never come over again,  
Sweet wife,  
No, never come over again. —Kingsley.

AN Alabama negro was heard to soliloquize, philosophically: "De sun am so hot, de cotton am so grassy, de work am so hard, dat dis darky feel called upon to preach."

AN Ottawa woman sold her washtub to a party of marksmen for a target. They paid her \$2 for it. After the marksmen had had their sport and gone, she went out and got the tub, and she is now just \$2 in. The tub was perfectly uninjured.

Beautiful hands are those that do  
Deeds that are noble, good and true.  
Be generous, honest, noble, true,  
In everything this day you do.

ARDENT LOVER—"I have called, sir, to ask your permission to pay my addresses to your daughter." Old Gent (somewhat deaf)—"Pay for her dresses? Why, certainly, my dear sir. Here are the bills." He gave one glance at them and fled.

"DEAREST," wrote the editor, "I have carefully analyzed the feeling I entertain for you, and the result is substantially as follows: I adore you. Will you be mine? Answer." Then, after a moment of thought, he added in a dreamy, absent way: "Write only on one side of the paper. Write plainly and give real name, not necessarily for publication, but as a guarantee of good faith."

"A LITTLE DEARER THAN HIS HORSE?"—"Oh, dear!" sighed a farmer's wife wearily, as she dropped into a chair after a hard day's work, "I feel just as if I were going to be sick. My head throbs and my back aches dreadfully, and—" "By gosh," interrupted the farmer, starting up and seizing his hat, "that reminds me. I forgot to give the two-year-old colt his condition powder to-night, an' he's been a-wheezin' all day,"



## HORSES AND CATTLE.

## THE BROOD MARE.

The best extra food for a breeding-mare is oats, carrots and wheat bran. If she is old, she should be fed mostly on cut hay, mixed with ground oats and wheat bran, half and half. If in good vigorous condition and not worked, two quarts a day of the mixed grain, with plenty of hay, is sufficient, but if required to labour, the food should be increased to eight or twelve quarts a day, according to circumstances. Brood mares will generally do well when fed on hay alone, but the hay should always be early-cut, sweet and free from mould. Clover hay, if well cured and perfectly sweet, is most excellent food, and so is good Timothy hay. I like, also, to feed once a day, if convenient, good clean bright straw (oat or barley); it makes a change, helps to keep up a good appetite, and is conducive to health. A mare in foal, if not worked, should be

be with them if possible, and free the foal from the cap, and cut and tie the navel cord with a string. If the weather is cold enough to warrant it, the mare should be in a warmed room. I like to have foals come early in the season, especially if provided with suitable accommodations.—S. M. in the *Agriculturist*.

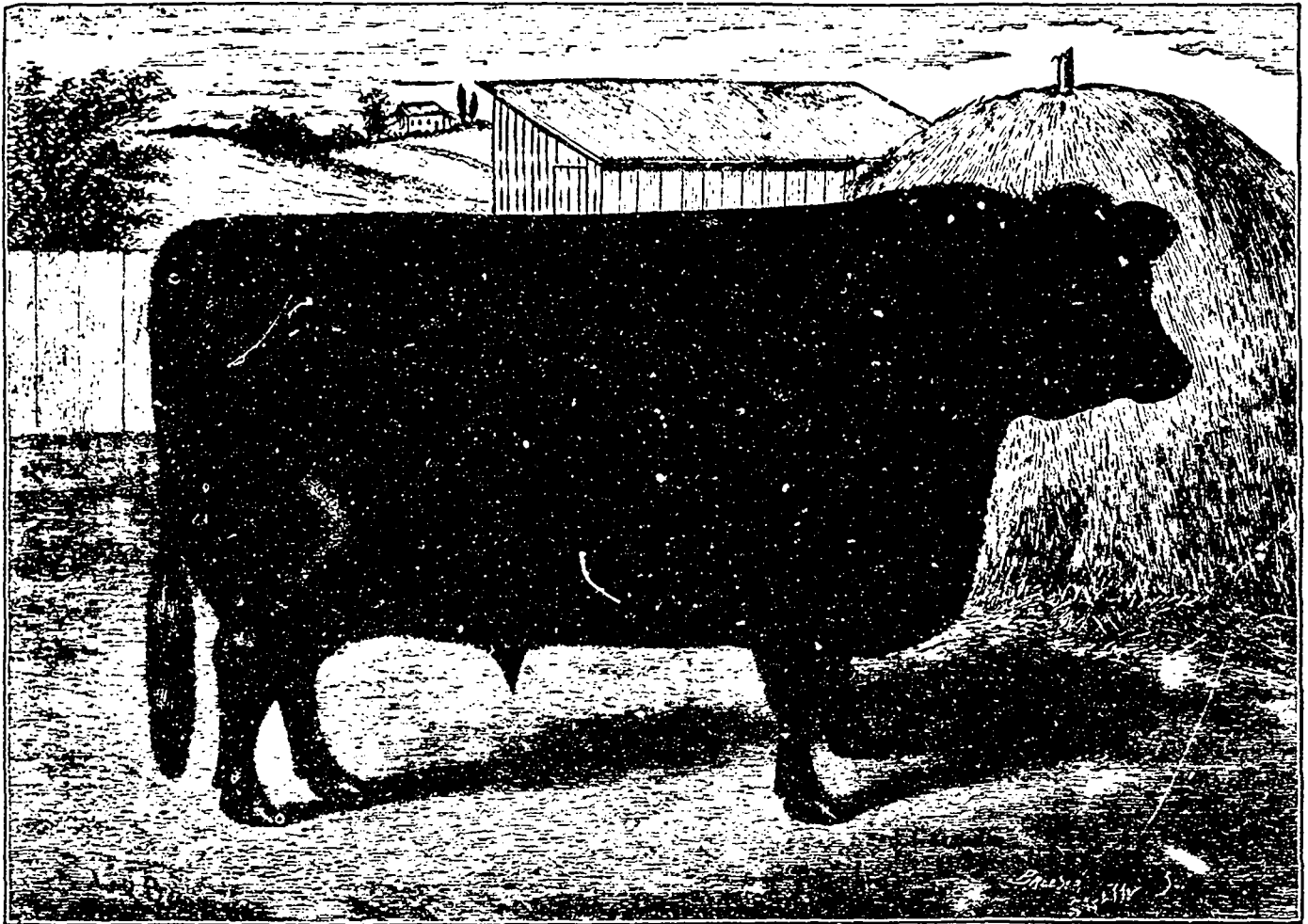
## BLACK PRINCE.

This celebrated Polled Angus steer, the subject of our engraving, was one of the most remarkable animals ever brought into this country. He was bred by Mr. Maitland, of Inverary, Scotland. After taking many prizes in the Old Country he was purchased and brought to Canada, at a great expense, by Messrs. Geary Bros., of London, Ont., the largest holders of this class of cattle in America, to demonstrate the high qualities of the Angus cattle as beef makers. Besides taking several other prizes Black Prince was the winner

him additional strength. Every farmer knows that when he himself undertakes to lift a large log or heavy stone, he can do more by first inflating himself with air, and not unfrequently he loses a button or two from his pantaloons in the operation. Some degree of inflation of water will add to a horse's strength in a similar manner. In driving a horse on the road at a natural gait of nine or ten miles an hour, we have frequently had occasion to observe that he was labouring with perspiration until we let him drink freely, when he ceased to sweat, and evidently travelled more freely. Don't be afraid to give your horses water; the danger is in making them abstain too long, in which case care is needed.

## BREEDING FOR SEX.

I have been interested in reading on "Breeding for Sex," and now give you my experience, which is twenty years. When the bull is in bet-



POLLED ANGUS STEER, BLACK PRINCE.

allowed exercise daily, in a paddock or barn-yard, and be allowed to roll at will. She should be confined at night, and in bad weather, in a roomy box-stall, rather than be tied by the head in a common stall. Gentle driving on the road, or even work, will not injure her in the least, if properly treated. I have often worked mares up to about foaling time, and had them do well. This is much better than to keep them tied up in a stall. A mare in foal should not, as a rule, be turned out into a yard or paddock with other horses. If there is a scant supply of milk when the foal is born, the mother should be fed with wheat middlings at the rate of eight to twelve quarts a day, beginning with four quarts and increasing the food daily. Excessive feeding might lead to derangement of the bowels, which would be injurious to the colt. A very little salt should be given at a time, and care taken to avoid exposure to either wet or cold. It is always best to let the mare have a run at grass, if large enough for a bite, before foaling; it will help to make milk and to put the system in a healthful condition to meet the wants of nature. At night, she should be brought into a dry yard, or housed, if the weather is at all in-

of the sweepstakes judged by the butchers at the last fat stock show held in Chicago. His age at time of slaughtering was 1,744 days; live weight 2,400 pounds, and dressed 1,712 pounds, being 72 per cent.

Polled Angus cattle are remarkable for hardihood, and it is claimed for them that for early maturity they are equal to the Durhams and Herefords.

## WATERING HORSES.

Horses, remarks the *Texas Farm and Ranch*, should never be kept so long without water that they drink largely when they get it. Give it to them often, and they will never injure themselves with it. Nothing is more common than to hitch a team to a waggon or sleigh and make them work half-a-day without a drop. What man would submit to such treatment? If a team is started by seven in the morning, water should be given before ten. Even if half an hour is consumed more work will be done in a day. The objection that horses on the road should not be loaded with water is not valid. A horse weighing 1,200 pounds will not be much encumbered by twenty

ter condition than the cows, there are most male calves, and when the cows are in better or equal conditions with the bull, there are most female calves; or, in other words, a fat bull begets mostly male calves, and a lean bull begets mostly female calves, provided the cows are in fair condition. In May, 1877, I bought two bull calves at a week old and put them to a foster dam; they sucked till November, then were taken to house and highly fed. They began serving a dairy of fifty-five cows on the sixth of April, 1878, the result was that the first thirty cows brought only six female calves. These two bulls were harnessed at two-and-a-half years old, and worked until they were five years old, and served the same dairy yearly. After their first year they beget mostly female calves. Perhaps some may say that young bulls beget males, and older bulls beget females; but that is not my experience, for last year the bull I used was a yearling, and fearing he would not be big enough to serve a dairy of fifty-five cows, wanted to feed him well and to get most female calves. So I let him run in the fields by day all the winter with the in-calf two year-old heifers. He was constantly teasing the

any fat. The result is, since January 12 we have had forty-eight cows calve, bringing two females to one male. A neighbour of mine has had only six female calves from twenty-three cows by a four-year-old fat bull. But I know there are exceptions to this rule. A relative of mine last year fed a four-year-old bull very high for exhibition, serving cows at the same time, and is having a majority of female calves. My experience is with Devon cattle only.

#### FOUNDER IN HORSES.

A disease that is far too common in horses is caused most frequently by driving or working them till overheated and more or less exhausted, and then allowing them to cool off suddenly without rubbing dry. A horse is driven hard for several miles, and then hitched to a post in the open air in cold winter weather, and perhaps forgotten by the driver, who may be telling stories or smoking a cigar by a warm fire; the next morning, if not sooner, it is noticed that the animal has not eaten well, and can scarcely move from the stall. The lameness may be chiefly in one limb, or in more than one. Dr. Cressy, in his recent lecture before the Connecticut Board of Agriculture, said that any case of founder can be cured if taken within thirty hours of the attack. The first thing to do is to place the horse's feet in tubs of warm water, then blanket heavily, and get the animal thoroughly warm all over. The lameness is caused by a stagnation of the blood in the feet, the result of being cooled too rapidly after exhausting labour. The warm water thins the blood vessels, and favours increased circulation. In very bad cases bleeding in the foot may be necessary, though ordinarily it may be dispensed with. Knowing the cause of founder, it will be seen that it is much easier to prevent than to cure this disease after it becomes established. In the first place, avoid very severe driving and over-exhaustion; but if abuse of this kind is unavoidable, see to it that the horse is not neglected at the end of his journey. Drive into a warm shed or barn free from cold draughts, and rub vigorously till the animal is dried off. Give warm water to drink, and cover with warm blankets. In short, treat the horse just as you would treat yourself under like circumstances.—*Farm, Field and Stockman.*

#### BREAKING HORSES.

Thousands of horses, says the *Breeders' Journal*, are only half broke. They are handled enough so that they can be herded along the road, but this cannot be called driving them. The horses should be taught to obey the voice as well as the rein, but how many do not half obey the rein, much less the voice?

Too little attention is paid in breaking a horse to stand still when he is hitched to a post. They are continually backing and moving forward, and rubbing and being restless. One way to prevent this is to block the waggon wheels, so that it is hard work for them to move the waggon. This can be done by having a short piece of heavy rope with an iron hook on each end. This rope should be just the length so that the hooks can be hooked under the felloe of the front and back wheels. This holds the wheels stiff, and if the horse moves the waggon he must slide the wheels, as they will not turn. A piece of hard wood can be used instead of the rope. It is stiffer and a little better.

Too many, in breaking their horses, put them immediately at work. This, while effective, destroys somewhat the action and temper of the horse. A free-actioned colt, when he is broken to drive, should be harnessed with a horse of the

same disposition as near as possible. This will teach him to imitate desirable qualities of his mate. A well-broken horse is much preferable to use in breaking a young horse, and long drives on a waggon will organize a colt quicker and better than anything else.

For our own use, we much prefer to break colts at first with a biting rig. This gives them a better mouth and a more wholesome respect for the bit than any other method. Two weeks of the biting bridle, three hours a day, with the colt turned out by himself in a safe lot with a good fence, is worth many dollars to a horse in after life.

Never tie a colt or an old horse with an old or insecure halter; for if the colt never knows that he can break his halter, he will very soon give up trying.

#### PRACTICAL STOCK BREEDING.

A scrub heifer bred to a thoroughbred bull for her first calf, and then repeatedly bred to the same bull will improve in her breeding so that each succeeding calf will be better than the preceding one, and this to a greater extent than if she had been bred to different bulls, though all equally good and of the same blood. This rule holds good with horses and sheep as well as cattle. Stick a pin right here. If you are breeding cattle get a good bull and keep him. If you calculate to breed Durhams, do so; if Holsteins or any other breed, do so; but don't breed to a Durham bull one year, and a Holstein the next. You must stick to the one thing if you expect to breed good grades of either; and more than this a cow that has once been bred to a scrub bull, if bred promiscuously to different bulls, even of the same breed, will never produce as good calves as she would if bred several times in succession to the same individual bull. The man who has good heifers, high grades of thoroughbred, and does not want to raise their first calves, and who uses a scrub bull because it is cheaper, is saving pennies to-day at the expense of dollars in the near future. Use nothing but thoroughbred males on all kinds of stock, and, all things being equal, the longer you can use the same animal the better. I do not mean by this that it is advisable to use him on his own progeny, but on the original animals it may be continued indefinitely.

#### SHOEING HORSES.

In response to an inquiry from a subscriber as to the propriety of shoeing horses, the editor of the Massachusetts *Ploughman* says: As the sole object of shoeing the horse is to prevent too great a wear of the ground surface of the outer crust of the hoof, it is very obvious that in certain districts where the roads are sandy and loamy the shoe may be dispensed with, much to the relief of the animal and to the pecuniary benefit of his owner. On pavements and macadamized roads the wear is too great and the foot must be protected. There are very many young animals that are shod merely because it is a custom to do so, and not because necessity calls for it. Where the shoe has never been applied, the hoof takes on a natural hardness, which fits it for an astonishing amount of work without injury. When it is desirable to remove the shoes entirely, the foot should be gradually inured to this new order of things by slow work, otherwise lameness will follow, especially in those cases where the owner has allowed the sole and frog to be mutilated by the knife of the blacksmith. These parts ought never to be touched with instruments. On icy roads, with heavy draught, it is probable that calkins cannot be given up, but these projections to the shoe are applied to the sole of the hoof

much to the injury of the limbs of the animal, especially where they are not of equal height. In fine, there is no reason why every farmer should not try the experiment of using his horses without shoes, especially on the farm work.

#### SALTING STOCK.

It pays to salt stock regularly, but it is not always convenient to do so. A simple and cheap device to keep an ample supply always within the reach of stock consists of a box, which may be four feet long, one foot wide and six inches deep. This should be nailed at each end to upright planks a foot wide, set firmly into the ground. These uprights support a roof that serves to keep out the rain. After the stock has been salted often and freely enough to satisfy their appetites, the box may be filled and all the animals given free access to it. They will help themselves whenever they wish, and the most timid, as well as the strongest will get all they want.

Horses may be taught to canter slowly and gracefully by riding them under the saddle for long distances up hill. The canter is a gait not so much desired since horseback riding has gone into disuse, but there are many indications that the healthful exercise given by riding on horseback is to become more popular, as it certainly should.

If horses or cattle are troubled with constipation, give such animals half a peck of potatoes, each day, for a week or two. Two quarts of wheat bran mixed with a horse's oats night and morning have a tendency to prevent and relieve costiveness. Bran fed moderately and regularly to cows, ewes, and brood sows will keep the bowels in proper condition.

The *Western Agriculturist* says: "Horse breeding is a prominent source of profit upon every farm, and the proportion of profit depends largely upon the kind of horses, as well as the energy and skill with which the business is done. The best stallions available are bred to the mares which are being graded up, then their colts are sure to bring a good price at any time. Scrub horses are more unprofitable now than ever before, while the draught horses have increased in profit and in numbers all over the West."

The Highland Society, remarks the *Breeders' Gazette*, has adopted as a rule for its next show that cattle should be judged by three judges, two to act and one to be selected by lot to vote only in case of the disagreement of the other two; also that the names of the judge, shall be announced before the show. There has been considerable difficulty encountered in satisfying losing exhibitors on that side of the water, as on this, with the result of the award, but it remains to be seen whether there will be any more general acquiescence under the new rule than under the old. But it seems as if the object aimed at should be correct judging, rather than such as will satisfy everybody.

Successful farmers, whether dairymen, fruit growers or stock raisers, are those who consult the requirements of the markets rather than their own inclinations in the matter. Consumers who pay their money will always demand a voice in the style and variety of the goods they purchase. Thus it is the breeders of grade draught horses meet a ready demand and good prices for all the good heavy horses as soon as they are old enough for market. The markets of this country and all Europe are eagerly calling for more good draught horses and of a heavier type. They are equally ready to pay the increased price for the extra heavy teams when they can find them, and so of the best stock of beef and dairy cattle and of hogs. The high grades and full bloods pay best in the

## SHEEP AND SWINE.

## GROUP OF LINCOLN SHEEP.

THE PROPERTY OF MESSRS. GEARY BROS., BLISSBORO  
STOCK FARM, LONDON, ONT.

Of the Lincolns Mr John Geary writes as follows:—

"Of sheep I prefer breeding pure Lincolns, as I think they are better adapted to this country than either the Cotswolds or the Leicesters. They retain their wool much better than the Leicesters, and the demand for it is just as good. I have imported a large number of Lincolns from England with a view to their wool, to their quality as mutton sheep, and their general adaptability to this country. I think crossing the Leicesters with the Lincolns produces a good sheep, and one that gives good wool. I breed only pure Lincolns; they are a very hardy and easily kept sheep."

prefer white animals. Notwithstanding that the black pigs present some of the most striking illustrations of skilful breeding, and are the perfection of form and of swinish beauty, people are prejudiced against them by early associations. Their first knowledge of pigs was gained from white ones, and in their minds, white is the proper colour for pigs. The number of so-called breeds of white pigs known in England was at one time very large; a slight variation, such as we may expect in a strain, was given a distinctive local name, and called a breed. English breeders took a long step in simplifying pignomenclature when they grouped pigs by their colours and sizes, and gave us large and small black breeds, and large and small breeds of white pigs. In 1852, a well-known English breeder exhibited at one of the important fairs several pigs of extraordinary merit; but too large to be judged among the small white breed, and not large enough for the Large Whites. The animals were so remarkably fine that they

sheep. When sheep are driven quite a distance, as they usually must be in order to find a suitable place for washing them, they are both warm and tired when they reach the brook or pond. To be plunged into cold water (and at the time when this work must be done, if it is done at all, the water is cold) when both heated and exhausted must cause a sudden and violent chill, which will not only be uncomfortable, but is liable to produce disease. A large quantity of water will remain in the fleece until it is removed by the slow process of evaporation. Thus for quite a period the animal heat is kept far below the proper point. Ewes having lambs are especially liable to sickness or injury from being washed in cold streams, though the most vigorous animals are not unfrequently harmed by the exposure to which they are thus subjected. If any reader thinks this is entirely an imaginary evil, let him go into a cold stream wearing heavy woollen clothes, and after he comes out keep them on until they be-



GROUP OF LINCOLN SHEEP.

## WHITE PIGS—LARGE, MIDDLE AND SMALL BREEDS.

Notwithstanding the superiority of some of the black breeds of pigs, and in spite of the fact that the colour, unlike beauty, is not even "skin-deep," the blackest pigs dressing quite as white as the whitest, there is, in this country, in the Northern States at least, a prejudice against black pigs. In the Southern States, in localities where the pigs run at large, and the Paint-root grows, it is black pigs or none at all. White pigs, if they feed upon Paint-root (*Lachnanthes tinctoria*), become completely blind, and their hoofs drop off, while the black pigs can eat the plant without apparent injury. This singular fact accounts for the prevalence of black pigs in many Southern localities. There are counties in England in which there is a prejudice against white animals, and others in which only black pigs are tolerated. While in the Western States the prejudice against swine that are black, in whole or in part, is rapidly disappearing, it remains quite strong in many of the older States, where those who keep but few swine or who raise the "family pig," almost invariably

could not be disqualified. The judges met the difficulty by making a third class, calling it the Middle White breed. Since then, while only the large and small black breeds have been admitted, the white pigs have three breeds, the Large, Middle and Small White — *American Agriculturist for May*.

## WASHING SHEEP.

On this timely topic "Farmer" addresses the following observations to the *American Cultivator*: Whether to wash their sheep, or shear them without washing, is a question which many farmers are now considering. Each course has strong advocates. I have tried both ways, and it seems to me that, as the work is usually performed and as it often must be done on account of circumstances which the farmer cannot control, washing is a failure. The number of farmers who favour washing their sheep seems to be diminishing. It is to be hoped that it will rapidly grow less, until none remain.

Unless the attending circumstances are unusually favourable, washing is injurious to the

come perfectly dry. By the time he gets perfectly dry and warm again he will have a better idea than he had previously entertained of the discomfort to which the sheep are subjected by being washed.

While the washing harms the sheep, and is often injurious to the men who do the work, it fails to secure the end for which it is performed. The wool is not made clean, and it cannot be kept as nearly clean as it has been made. Much of the dirt is removed but much still remains. While the sheep are going home, often over dusty roads, and while they are in the pasture, not a little foreign matter will get into their wool before the shearing is done.

Buyers know that some men wash their sheep a great deal better than others, and in fixing a price for washed wool they design to make a liberal allowance for all the dirt which remains in the poorest lots. The man who does not do the washing well may not get more than the wool is worth but he gets more in proportion than the man who washes his sheep as well as possible. The latter may get a little more per pound than the former, but he will not be likely to get as much money for his wool as a lot as he would have received if he had not washed it at all.

**POULTRY AND PETS.****POULTRY NOTES.**

"They say" fat hens lay small eggs.

PEPPER in warm food is good for fowls.

Eggs for hatching should not be over two weeks old.

Don't forget to sprinkle the eggs under the setting hens occasionally with lukewarm water.

See that there is a piece of rusty iron, or a few old nails, in the water that the young chickens drink.

In selecting eggs for hatching, do not buy the largest, but rather those of an even size, and with good and perfect shells.

Young chicks have little to fear from disease, if properly fed and housed. They cannot stand damp, and until four or five weeks old should be kept in as dry quarters as possible. Keep them in their coops till the heavy dews are off.

How to get the largest number of chicks from the fewest hens is what is desired. A good plan is to set several hens at one time and after a week or ten days examine the eggs, removing those that will not hatch, placing the good eggs together under some of the hens and resetting the other birds.

REMEMBER that early chickens and ducks bring remunerative prices, if marketed early and in good condition. So don't stint the feed or allow them to roam the country over in order to pick up a living. When about two months old those intended for market should be placed in coops, and fed with buckwheat or oatmeal made into dough for eight or ten days, not longer.

There is more solid nutriment in whole wheat as a food for poultry, than in any of the cereals, weight for weight. Great care, however, should be exercised in feeding it, especially to the Asiatics. Too much of this very hearty food might prove detrimental. Mix one-third wheat with two thirds of some other grain, for ordinary purposes in the laying season, and hens will do well, and be kept in a better average condition than by a greater allowance.

SCALY leg, which frequently troubles and disfigures many of the older fowls, is caused by very small parasites, which gather under the leg scales and rapidly increase in number. The cause, like most other ills that chicken flesh is heir to, is simply lack of cleanliness. The disorder is contagious and cannot be got rid of entirely without a thorough cleansing of the chicken house. To remove the parasites, partly fill a pail with water and pour in a little coal oil, which will float on top of the water. Then dip the fowls' legs into the pail, soaking them for two or three minutes; wash the legs afterwards with soap suds. Or take two parts of lard and one of coal oil and smear the legs well every night.

THE Eastern Ontario Poultry and Pets Stock Association held their first exhibition in Ottawa on the 18th, 19th, and 20th of February. Previous to the exhibition the weather became unfavourable. The roads were impassable in many parts of the country, and a great many farmers and poultrymen were unable to attend. Notwithstanding all these drawbacks, the attendance was fairly good. The number of entries was large, and the class of poultry exhibited was of a high order. Quite a number of purchases were made during the last days of the exhibition, and the prices realized were satisfactory to the owners of the birds. The above Association, although only organized a few months, are to be congratulated on their success in this new enterprise, and they feel confident that they will do still better next year.

**A SUCCESSFUL BREEDER'S EXPERIENCE.**

Referring to an illustration and brief note on Buff Cochins in last RURAL CANADIAN, Mr. G. E. Perkins, of Ingersoll, writes as follows:

"I have imported eleven thorough bred hens (Buff Cochins) for the purpose of improving the stock of this county. I consider them in some respects the very best fowls to keep. They mature very early, often commencing to lay at five months. They are very quiet and cannot fly over three feet high. They are the best of mothers and are No. 1 winter layers, even during the coldest weather, if fed on suitable food for producing eggs. They require less fattening food than the small breeds and less room to roam about.

I have wintered over 100 fowls this winter and my experience is that the Buffs stand at the head of the list for health and happiness. Next to them come the Light Brahmans. Then the Plymouth Rocks. The latter, I think, will lay more eggs than the Brahmans; but I have found them more susceptible to change of temperature; and more liable to disease.

Among the small breeds I find S. S. Hamburgs stand first, both for eggs and hardness. Next on the list I put White Leghorns; then W. F. B. Spanish. And just let me say here that while the last mentioned kind are among the first as egg producers the require the greatest care; and will not do well to run with other kinds, as they are sure to be abused by almost any other breed.

Of course there may be other varieties which I do not keep that may be equal to any I have mentioned. I raised upwards of 400 last season, and have only lost three by sickness, and about the same number by accident. I have had a few sick ones this winter, caused by over-feeding. One died suddenly but the others I took in time and soon had them well again. They act as if they had lost the use of their legs, and when they try to walk seem as though their legs were tied. I have found that half a dozen red-pepper pills given at once, and about three drops of spirit of ammonia in a little water is a quick remedy. It is best to remove any affected ones to a dry, warm place at once, and feed oat meal porridge. I shall be pleased to give (in a future) number of your valuable paper, my experience in feeding to produce eggs with the figures, showing the result, also different feeds for different breeds, and why they should not run together.

We shall be glad again to hear from our correspondent.—Ed. RURAL CANADIAN.

**VERMIN! VERMIN!! VERMIN!!!**

Springtime is upon us, and it behooves every one who raises but a dozen fowls to keep them free from mites and lice, which will destroy the little chicks about as fast as you can hatch them out. One common fault among farmers and country people is to allow hens to lay and sit in the same nest one after another during the whole season, without cleaning out the nest, and adding fresh material. There is no greater means of producing vermin and perpetrating them, than this very course. It is rarely ever that a brood of chicks hatched in an old nest used for the same purpose before, will escape these pests, and if they once gain a foothold, it means fight and war against them the whole season.

Whenever a hen has hatched her brood, the old nest material should be taken out and burned, and the flames allowed to reach in and about the box, if such is used, and by that means, not only the living vermin will be destroyed, but the eggs for a future supply also. The perches should be rubbed over with kerosene, or sprinkled with a

solution of carbolic acid, or still better, sprinkle the perches, nest boxes and premises with a solution of sulphuric acid, the only known substance that will kill some kinds of animalcule, too small to be seen with the naked eye, and yet fertile for mischief in the production of diseases. The solution should be used of a strength of about one pound to ten gallons of water, to make it a sure thing. Half that strength will, in many cases, answer the purpose, but as the acid is a cheap article, we can afford to use it in almost any strength. It can be bought at from ten to fifteen cents per pound.

**IMPROVE YOUR STOCK.**

No matter what variety of fowls you are breeding, you should improve them by introducing fresh blood into the flock occasionally, from such strains as you have reason to believe are of the best blood.

There is no easier or cheaper way than by buying a sitting of eggs, and when you have raised the chicks, you can select from them just such ones as you prefer to combine with your own. Suppose you pay \$3 for a sitting of eggs and raise but three fowls (a very low estimate), it will be cheaper than to buy, as you cannot purchase a cockerel such as you would like to have for less than four or five dollars, and certainly not less than three. When you do purchase for the purpose of getting fresh blood, try to get them with a reasonable assurance that they are not of the same blood as those you have. Get strange blood, even if you are required to pay a few dollars more; for what will a few dollars amount to when compared with the number and quality of the offspring.

When setting your hens, do not place too many eggs under one bird. This is frequently the cause of small broods, for though the hen may seem to be covering the eggs properly, yet in reality those in the outside row do not get sufficient warmth and are chilled. Greater success will be obtained by placing nine to eleven under medium sized birds, and eleven to thirteen under larger ones.

LEG weakness usually occurs in young birds, more frequently in cockerels than pullets, and generally attacks the finest and heaviest birds. It is most common among the larger varieties such as Cochins and Brahmans. The cause of this troublesome complaint is a too rapid increase of weight, in proportion to muscular development; but constitutional weakness may also produce it. The birds affected are, more or less, unable to stand, and sink down on their hocks. External applications are perfectly useless, and the most rapid improvement follows the administration of from three to eight grains of citrate of iron daily, and feeding plenty of flesh meat or worms. Cease giving any fat form of food such as corn, substituting wheat or barley.

In breeding for early market, it is important to have a breed that grows rapidly and fleshes up young; the skin should be yellow, and if the feathers are all white, both the chicks and old fowls will look much better when dressed than those with coloured feathers. The colour of the skin is important, yet half of the fowls that are sent to market have anything but a yellow skin. Small bone, short legs, and a well-rounded form are also desirable, and a size, when full grown, not less than five pounds, and not over six before dressed, give the best early chicks for market. None of these qualities are an injury to a laying hen, and if to them are added good layers, hardy and quiet, we have combined the points necessary for both meat and eggs.



## THE DAIRY.

### KEEPING UP THE FLOW OF MILK.

If drying off cows within one month after parturition, and causing them to go dry eleven months in the year, will, in ten generations, reduce the flow of milk so much that the dams will not give enough to sustain their young, going dry four months of the year must have a proportionate effect in the same direction. It must be apparent to the dullest apprehension that going dry three or four, or more months in the year, must produce an effect very different from giving milk the year round.

No farmer should be so ignorant of physiological law as not to appreciate the inevitable effect upon the milking capacity of cows, between going dry a very long time or a very short one. The difference is greater with heifers than with cows of established habits. It is important that heifers should be milked continuously, if possible, and it is better for older animals that their season for milking should run well nigh to the next birth.

It is thought by many that a good long season of rest, in which to recruit in flesh and strength, is the best means for fitting cows for successful future work, and, no doubt, it is better than to let them get reduced to poverty and great feebleness, but it is better still to supply them with feed enough to sustain them, and let the flow of milk continue as long as it will, than to feed so scantily as to cause them to run so low as to require stopping to rest. There is no more need of a cow's stopping milk to rest than there is of a musician's stopping practice several months to give his fingers increased strength. The longer he abstains from practice, the more his fingers lose their skill, and his will the power to control them, and it is about the same with a cow's udder. The longer it is idle the more is its aptitude for secreting milk enfeebled.

We say, let the milk continue to flow. Ample feed and good care are better than a rest. They will make a cow give more milk at less cost, and make her endure longer.

### SYSTEM IN THE DAIRY.

We want to say a strong word for system in the dairy, and by system we do not mean those general customs that have the cows come in in the spring, milk twice a day and skim and churn at regular periods. What we mean is a close, economic, money-making system, that looks closely after the tidbits and minor points of the business. It is the sum of these that go to make up the balance of profit in the dairy, while their neglect just as surely will mark a loss, no matter how good the general plan may be. There should be regular hours in the dairy not only for feeding, skimming, and churning, but for doing each important act, such as cleaning out the stable or scrubbing the dairy room, as well as days set apart for all the extra work of cleaning so that it will not be forgotten. The most important items of system in any business are those of account keeping. In any business the man who has it in charge should be able, from his books and the adoption of a regular system, to compare the work and results of one year with another, so that he may be able to tell at a glance whether he is going forward, backward, or standing still. To do this intelligently, the system must include keeping weights of milk produced, of individual animals if you can, but of the gross yield sure. Then the amount of butter made and the separate amount sold. By such a system of accounts you will see what months you made the most butter and what months it sold at best

prices, and thus you can shape things to bring these two points more nearly together in future. System in small things is the main feature of successful management, and the man who will take the most trouble in this respect is sure to make the most money in dairying.—*U. S. Dairyman.*

### HOLSTEINS VS. JERSEYS.

The *Irish Farmers' Gazette* reports an experiment in comparing the dairy value of the Holsteins and Jerseys, in which two cows were selected from the best shown at Amsterdam, imported to England, and there compared with two ordinary, well-bred Jerseys, the two pairs having the same treatment so far as stabling and kinds of feed were concerned. In the first test of fourteen days, the Dutch pair consumed a total of 1,295 pounds of feed, consisting of hay, grass, cabbage, bean meal and barley meal; and the Jersey pair consumed 906½ pounds of the same food in the same proportions. The Dutch cows averaged through the period twenty-seven and one-half quarts of milk per day, and the Jerseys fifteen and one-half, but the Dutch milk made but twenty-three pounds thirteen ounces of butter, while the Jersey milk made twenty-eight pounds three ounces. In a subsequent test made from November 24 to 30, the cattle were fed wholly in the stables, and with similar food to that given above, except that that they had some mangolds. In this test the Dutch cows consumed 1,140 pounds of food, and gave 365 pints of milk, which yielded ten pounds one ounce of butter, while the Jersey cows consumed 755 pounds of food, and gave 194 pints of milk, which yielded thirteen pounds three ounces of butter.

### DIFFERENCE IN MILKING.

It is a fact, says the *Minneapolis Tribune*, that a poor milker will spoil almost any cow, and there are but few people who are aware of the fact that in the mere process of milking a great difference is made in the yield of a dairy cow. The ability to bring a cow to her largest yield of milk varies with different milkers. Some are in reality very poor ones. Owing to the fact that a large proportion of what a cow gives at a milking is secreted during the process of milking, it must naturally follow that unless the cow is in a quiet, contented state of mind, and satisfied with the milker, that the usual secretion of new supplies during milking will not take place. It is generally owing to this cause that cows oftentimes "hold up their milk," as it is termed, and this cannot be obviated so long as the cow is in a restless state of mind and dissatisfied with her milker.

Does your wife, daughter, or hired girl do the milking? If so, we say keep the barn-yard well littered and clean. Have a good gate at the yard, and a nice, clean walk to it.

When a cow's teat becomes obstructed with thick, stringy matter, and when this is forced out, thin, watery stuff is drawn out instead of milk, it indicates garget. This trouble may be caused in various ways. Lying in a cold, wet spot out in a field at night, a sudden change from hot weather to cold, squeezing the full udder as she lies down, chasing about with a full udder, indigestion from any cause—all these will cause it, and so will bad milking, such as leaving bad milk in the teats. When it happens the cause should be discovered and the proper remedy applied. Usually a dose of linseed oil or a pound of Epsom salt with a teaspoonful of ground ginger, and rub the udder with camphorated ointment, will remove the trouble in twenty-four hours. The udder must be completely cleared of the matter and milk in it.

The *Dairyman* warns farmers to mix kerosene with lard when applying it for lice. When kerosene is used alone it is apt to leave blisters.

An exchange thinks heifers intended for the dairy should not be fed on fattening food. Plenty of coarse provender is better. It enlarges and strengthens the digestive organs, and when they come in profit, the tendency will be to milk and not to fat.

A GREAT deal of butter is injured in quality before the milk is brought from the barn or stable. If poor butter is the result, the housewife or dairymaid is not the one to hold responsible. If cows are well bedded, and the milker uses due care there will be much fewer complaints of ill-flavoured butter.

In skimming the cream off from milk, there should always be milk enough skimmed with the cream to give the butter, when churned, a bright, clean look. Butter churned from clear cream, with little or no milk in it, will usually have an oily or shiny look. This shows that the grain of the butter is injured, which affects the keeping qualities of the butter.

In skimming the cream from milk, says the *Dairy Farmer*, there should always be milk enough skimmed with the cream to give the butter, when churned, a bright clear look. Butter churned from clear cream, with little or no milk in it, will usually have an oily or shiny look. This shows that the grain of the butter is injured, which affects the keeping qualities of the butter.

When a new milch cow has her calf taken from her, she will often hold up the milk apparently for the purpose of saving it for her offspring. It will require kindness and patience to overcome this habit. The operation of milking is pleasant for the animal, and if she is given a mess of warm slops while being milked her attention will be so diverted that she will yield without remembering her calf. It is important to milk clean from the first, as retention of milk in the udder injures it and tends to decrease the yields.—*American Cultivator.*

Mrs. E. M. Jones, Brockville, Ont., owns the Jersey cow, Maggie Rex, 28623. In twenty-one days in March last, this young cow gave 872 quarts of milk, making forty-seven pounds eight and one-half ounces of butter. For seven days the butter yield was seventeen and one-half pounds. Mrs. Jones writes the *Country Gentleman* that the cow's feed averaged eighteen quarts daily of bran, oats, barley, corn and peas ground together, a small portion of it being oil meal, not exceeding two quarts daily, and a few carrots and good hay.

Feed decides the amount and quality of the milk and butter. It does not pay to keep a cow on half rations and have her go dry three or four months, and hardly pay for milking for three months more. This manner of treating the cows is decidedly unprofitable; but that many farmers so manage theirs is only a matter of common observation. The cows should be so bedded and treated as to keep them in full milk, as long as possible. This should be the aim in their keeping, and not to see on how little feed life can be kept within their bodies.

According to an exchange, two remarkable experiments affecting the production of milk have lately been made in France. In one case two cows were taken, each giving the same yield of milk, and were fed upon exactly the same kind of food except that the water given to one was warmed to a temperature of sixty-six degrees Fahrenheit. The latter animal's return in milk was shown to be one-third greater than that of the other. A similar experiment was made at the Agricultural College at St. Remy, the results being precisely the same.

MISCELLANEOUS.

JACK: "We're very proud of our ancestry, you know." TOM: "Yes, I know; but how would your ancestry feel about you?"

A MERCHANT in New York, who has lost his fortune in a petroleum oil well speculation, was unkindly advised to let well alone in future.

"Now, then," said one spirit to another at the seance, "what are you pushing and crowding so for?" "The fact is," was the reply, "I'm an old politician, and want to get a place in the cabinet."

"STEP this way, if you please, ladies," said the gracious floor-walker, as he led off with a majestic wave of his hand. "We are sorry," said madame; "but we never learned to walk that way."

AUSTIN, Texas, has a female deputy sheriff, and when she tells a man she has an attachment for him, he don't know whether to blush and try to look sweet, or to light out for the woods.

An Irishman on board a vessel when she was on the point of foundering, being desired to come on deck as she was going down, replied that he had no wish to go on deck to see himself drowned.

It is related of a Lancashire young woman and a Chinese lady that on being introduced they looked at each other's feet, and then both fainting dead away, the former from mortification, and the latter from fright.

A FASHIONABLE lady, in boasting of her new "palatial residence," said that the windows were all stained glass. "That's too bad!" cried her mother; "but won't soap and turpentine take the stains out?"

"I HOPE you are not cutting a friend," said a neighbour to the farmer who was scratching the back of a pet pig with a stick. Bristling up with indignation, the soil-tiller replied: "No, sir; I'm only scraping an acquaintance."

"WELL," says a philosophic friend to the invalid. "Had a good night last night?" "No; I never suffered so in my life." "H'm, that's bad! But," brightening up, "you know a bad night is better than no night at all?"

"If ever I marry, I shan't seek for mind; mind is too cold. I'll choose an emotional woman." "Don't do it," eagerly exclaimed his bald-headed friend, "don't do it, I implore you. My wife is an emotional woman."

A MR. H., a young coxcomb, one day hearing people speak of age and appearance, said: "Jerrold, don't you think I look much younger than I am?" The reply was: "It is not your looks, my boy; it is your conversation."

"I wish I were an owl," said the young lawyer. "Why?" she asked. "Because then I could stay up all night, you know, dear," he replied. "What would you want to do such a ridiculous thing as that for?" she tittered. "To wit: To woo."

THE craze on electric study is beginning to bear fruit. "Are you the conductor?" asked a lad on a tramcar. "I am," replied the courteous official, "and my name is Wood." "Oh, that can't be," said the boy, "for wood is a non-conductor."

LITTLE BERTHA: "Yes, mamma, I took three bonbons out of the drawer." Mamma: "That was very naughty, my child; but I will forgive you, because you confessed it." Little Bertha: "Then give me the other, mamma, for I really took only two."

GROROX III, speaking to Archbishop Sutton respecting his large family, made this remark: "I believe your grace has better than a dozen?" "No, sire," replied the archbishop, "only eleven." "Well," replied the king, "isn't that better than a dozen?"

"WHAT in the world are you staring at that young married couple so intently for?" asked one young lady of another, in a railroad train. "Oh!" exclaimed her companion, with a start and a sigh. "It's so natural for us girls to contemplate matrimony, you know!"

"IN my time, miss," said a stern aunt, "the men looked at the women's faces instead of their ankles!" "Ah, but, my dear aunt," retorted the pretty young lady, "you see that the world has improved, and is more civilised than it used to be—it looks now more to the understanding."

A TEACHER in one of the schools inquired the other day if any of her scholars could give the definition of the word "dandy." This seemed a puzzler till a little boy near the front held up his hand and said—"I know what a dandy is!" "And what is it?" "He is a boy what kitheth the dith."

General Grant's Case.

"SOMEONE HAS BLUNDERED!"—CAN IT BE POSSIBLE?

The New York Herald says: "If General Grant should recover from a disease which should prove not to have been what it has been described, then his medical attendants will be expected to explain the reasons for one of the most remarkable instances of discrepancy ever recounted in the history of medical practice."

The other day an eminent young physician in the last stages of consumption, unable longer to talk, called for pen and paper and indistinctly wrote this advice to his physicians: "Make dying comfortable."

This seems to have been the sole purpose of General Grant's attending physicians. They were making dying comfortable, but they were not curing their patient. He amazes them by getting better!

The utter failure rightly to diagnose and properly to treat General Grant's disorder was a serious blunder, emphasizing what has so often been said, that professional treatment, being purely experimental, is just as likely to be wrong as right.

Had the General an ulcer on his arm the physicians would have treated it scientifically, very scientifically. He might have recovered or they might have cut his arm off. Some dear old soul of a grandmother, however, might have treated the sore by some "old woman's remedy" and healed it, but there would have been no "professional science" in such a proceeding, as her remedy would not be one recognized by the code!

The General's physicians excuse themselves, we are told, because the condition of the throat was hidden from sight. There are thousands of cases where disease is hidden from sight, where the symptoms are very obscure and conflicting. The physicians will treat everyday's symptoms but they do not cure, and finally the patient dies. Then they discover they have made a mistake! A horrible mistake! The other day a prominent merchant in a neighbouring city was found dead in bed. A post mortem examination revealed the fact that one of his other vital organs was entirely decayed, and yet his physicians had been treating him for heart disease!

Some one has blundered! For weeks the American public have been waiting the unwelcome tidings of General Grant's death. To-day, the General is up and around and riding out.

People get well often in spite of what their doctors say and do. Why? By will power? No. By faith? No.

They live because outside the medical profession and medical pretence there are effective remedial agencies in nature which, though "unrecognized" by the code, have supreme power over disease, and in thousands of cases win triumphs where the so-called scientific treatment utterly fails.

A prominent ex-cabinet officer is to-day on the very edge of the grave, suffering from an extreme disorder of the liver. His doctors know they cannot cure him. They simply are making dying comfortable.

The agony of death in many cases is read by surrounding friends in screams of pain, in convulsions of nerve, in spasms of torture—the fixed eye, the chilly breath, the dreadful coughing, the bloody sweat—supreme inflictions of pitiless disease upon a helpless body—indicate the limitations of "professional skill."

Seven-tenths of the deaths of this country every year are from hepatic and renal disorders, over which physicians have so little power. They will give this, that and the other thing to make dying comfortable, but they know they cannot cure, and yet they will not permit the use of remedies "unauthorized" by their code, whether they are allopathic or homoeopathic. If the system, as is common at this time of the year, has no tone, and one has tired and depressed feelings, the doctor will tell you that the blood needs purifying, but he will not tell you, what he knows to be true, that the blood is impure because the liver and kidneys are not performing their blood-purifying functions.

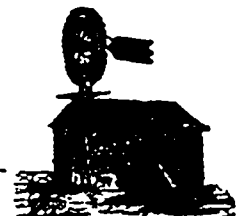
The failure of the physicians in General Grant's case ought to have an eye-opening effect upon the public. It ought to see the fatality of trusting entirely to a profession whose practice is so largely experimental. The test of merit is success, and when any agency has won a record proved by the testimony of prominent men and women in all ranks of society, it stands to reason that such a preparation is worthy of universal confidence. Who has not heard of it? Who has not used it? Who can gain say the statement that it has wrought

greater benefit for mankind than anything ever discovered inside the ranks of the medical profession? And yet many physicians who are bound hand and foot to their code will not allow nor will they prescribe the use of Warner's safe cure. Nevertheless, spite of their small-minded bigotry, it multiplies instances of its singular merit by thousands every day, rests satisfied with the record it has won, and challenges comparison with the record of the most reputable physician.

It is a terrible thing to lose our friends, especially if we find out afterwards that they might have been saved.

We are glad General Grant is getting well. He deserves to live, and in living he will emphasize the fact that physicians do not have a monopoly over disease; that "scientific medicine," so called, is not infallible; that all remedial agencies were not born with doctors and will not die with them.

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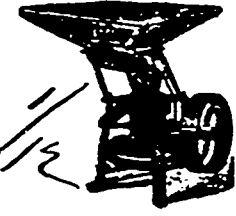


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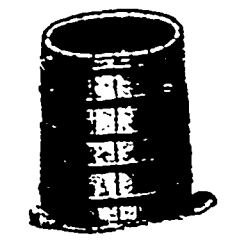
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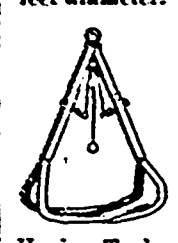
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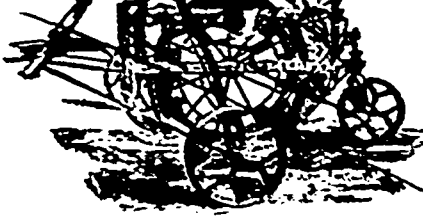


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## The Rural Canadian.

TORONTO, MAY, 1885.

### THE RISE IN WHEAT.

A few months ago columns of newspaper articles were written in Europe and America on the low price of wheat, and on the poor prospect for farmers if they continued to grow wheat on the same large scale in the future as in the past. The rivalry of India was regarded with a measure of dread, and elaborate calculations were made to prove that farmers in the more civilized countries—where the price of labour and the cost of living are relatively high—could not hope to compete with the rice-eating farmers of India. In Russia, in Australia, in the United States, and in our own North-West the area in crop was expanding year after year, and it did not stand to reason, we were told, that the price of wheat could keep at the level of former years.

"It will never reach a dollar again," the farmers were told, "and it will steadily go down unless the area is reduced."

These remarks were thought to be very wise at the time, and they had so much weight that in the United States alone the breadth of fall wheat sown is estimated to be two million acres less than for the previous year.

But the wisest of us cannot see very far into a stone wall, and to-day the rivalry of India does not cost the European or American farmer a thought. "Wheat may fetch eighty cents," we were told last September, "but the chances are that before May it will drop to sixty-five." On the 16th of September it was quoted in Toronto dull at eighty cents for No. 2 fall, and seventy-eight cents for No. 3, and before the end of April No. 2 is advanced to ninety-eight cents and No. 3 to ninety-three cents.

The change, however, has been more sudden than this, as the following quotations from the Toronto market will show:

	March 25.	April 25.	Increase.
No. 2 Fall.....	\$0.52	\$0.98	\$0.16
No. 3 Fall.....	0.80	0.93	0.13
No. 1 Spring.....	0.52	1.00	0.18
No. 2 Spring.....	0.80	0.97	0.17

Of course, it is easy enough for all of us to be wise after the event, and no one who is a reader of the newspapers requires to be told the cause of it. Knowledge of the fact that the United States crop is estimated to yield 100,000,000 bushels less than last year would doubtless have an appreciable effect under any circumstances, but the real cause is the dark war-cloud that overshadows Afghanistan.

A conflict between England and Russia means the closing of the Black Sea ports and the sealing of Russia's wheat harvest in her warehouses and granaries. It means, also, that the whole of India's crop will be needed to feed the English soldiers in Afghanistan. Thus will two great sources of supply be cut off in the markets of western Europe, and with the war-demon once loosed Heaven only knows how long the sword will force the ploughshare to lie rusting in the furrow.

War is indeed a terrible calamity—and the effect of it will be felt on the progress of settlement in our own North-West for many days—but we see in the present instance how suddenly it upsets all the calculations of business men and economists. No one, perhaps, could have foreseen eight months ago the turn that events have now taken; but because they could not be foreseen is one of the strong reasons why men should refrain from giving positive advice. It is only safe to venture a prediction when we know every move of the board, and even then a prediction needs liberal qualification to be on the safe side.

The fear of India's rivalry has vanished for the meantime, and a much graver question has taken its place. The loss of a few cents per bushel on the profits of wheat growing is a trifling matter compared with the slaughter of thousands of human lives, the waste of millions of money, and the possible extension of the reign of arbitrary power on the earth.

### OUR FIRST ARBOUR DAY.

The Minister of Education has issued a circular recommending that Friday, the 8th inst., be taken as a holiday in all the rural and village public schools of Ontario, to be known as Arbour Day, and he recommends the following programme:

1. Levelling the school grounds and laying out walks to the rear and front in the forenoon of the day.

2. Laying out flower beds where the soil is suitable, or sodding the ground, or seeding it down with lawn grass seed.

3. Selecting and careful planting of shade or ornamental trees and planting them in the afternoon in presence of the pupils.

The trees recommended for planting are the soft and hard maples, elms, basswoods, walnuts, butternuts, birches, chestnuts, and other deciduous trees; spaces being left for evergreens, which should not be planted until the first week in June. If the pupils are made partners in the improvements, the Minister observes, and their co-operation secured in every part of the work of the day, there need be little fear that they will wantonly destroy that which their own labour created.

We think that the Minister's recommendation is a very good one, and we trust that rural trustees will act upon it with becoming heartiness. School grounds, too often, are as barren of beauty as an African desert, and yet very little effort is needed to make them trim and inviting, and scarcely less valuable in an educational point of view than the work of the school-room itself.

The members of the Fruit Growers' Association at one of the meetings of that body last year strongly urged that something of this kind should be done, and it will be gratifying for them to know that their advice on the subject promises to be very generally accepted. But it is not every one who knows how to plant trees so that they may grow, or what varieties of flowers should be planted so as to give the best display for the season; and we would suggest to the members of the Association the preparing of a few short and simple directions as to these matters. Doubtless the Minister would gladly receive assistance of this nature, and would undertake to print the directions for public use.

But why confine the operations of Arbour Day to the school grounds? If time permit, trees might be planted along the highway in the vicinity of the school-house, and in this way improve the general effect of the locality. Not only that, but we should have an annual Arbour Day, devoted to tree-planting in all parts of the Province. There is nothing like some kind of system for work of this kind, and we are sure that as the result of it the appearance of the country would be wonderfully improved in the course of a very few years.

By all means let us have an annual Arbour Day, and let every man, woman and child in the land observe it fittingly.

The recent improvements made in the appearance, make-up, and contents of the *California Patron and Agriculturist* are so marked as to call for hearty congratulations from *confreres*, and must greatly help to extend the circulation of this old and valued journal. In its new and becoming dress we wish it all the prosperity it so well deserves.

### MOKE MUTTON WANTED.

Our brilliant cotemporary, the Bobcaygeon *Independent*, usually deals with Imperial and international questions; but sometimes, as in the following, he condescends to throw a flood of light on a rural subject: It seems rather odd that Canada does not grow enough wool to supply itself with all its needs. It has to import a considerable quantity. Really, now, our farming friends ought not to allow this—they should raise more sheep. It would be better and pleasanter for everybody if they had more mutton. Europe has 66 sheep to every 100 inhabitants, the United States 76, and Canada 77. None of these countries supply their own needs. Where, then, does the wool come from? It comes, first, from South Africa, which has 980 sheep to every 100 inhabitants; second, from Australia, where there is an average of 2,402 sheep to every 100 inhabitants; and thirdly, from the regions of the River Plate, which has 2,580. Decidedly Ontario ought to raise many more sheep. It is most discreditable and disheartening to find that there is only three-quarters of a sheep to every inhabitant. If Canadians were compelled to eat nothing but mutton, in two weeks there would not be a sheep left in the Dominion. When this journal reflects on these things it can't sleep at night.

### BRITISH LIVE STOCK TRADE.

A period of great and searching depression is on the British cattle market, which has produced a sharp break of 1c. per pound in values, which are down to the lowest point for a long time. Special cables are the most discouraging received during the past year, and report the trade in a deplorable condition which it would seem difficult to exaggerate. Receipts of cattle from Canada and the United States have continued heavy, and in them the depression is relatively greater as the supplies from other sources have been light. Recently the market has been extremely dull, with values declining, and the feeling is very weak at the full decline. The offerings of Canadian cattle at Liverpool were heavy and the demand very dull, which caused trade to drag along in a most disheartening manner to owners of stock, who were compelled to heavy reduction of cost, especially on the common grades, if sales were to be made. A large number was held over, being practically unsaleable, owing to the depressed state of the market. Prime Canadian cattle declined 1c. per pound as compared with a week ago, selling down to 12½c., which is an extraordinarily low figure. Fair to choice grades were quoted at 12c., poor to medium at 11c., and inferior and bulls at 7½c. to 9c. These quotations are calculated at \$4.80 in the £. Dressed beef in Liverpool was last cabled at 5½d.

As we go to press the Tenth Annual Report of the Ontario Agricultural College and Experimental Farm reaches us. We have no room to do it justice in this issue, but hope to refer to it very fully next month. The College is doing a good work for the farmers of Ontario; and the expenditure on the College and Farm is money well spent.

THE RURAL CANADIAN continues to exhibit marked evidences of enterprise and improvement, the last month's number presenting an unusual number of excellencies. Mr. C. Blackett Robinson, the publisher, has taken over the *Canadian Farmer and Grange Record*, incorporating it with THE RURAL CANADIAN, in which the Grange and Apiary Departments will be continued.—*Sentinel Review*.



## CANADA SHORTHORN HERD-BOOK.

Below we give a list of transfers of thoroughbreds reported from March 20 to April 20, 1885. In the following list the person first named is the seller and the second the buyer:

C. Exeter Snowdrop [14536], by King William [12789], Neil Stewart, Lumley; A. Bishop, M.P.P., Exeter.

B. King William [12739], by The Cavalier [7944], late Neil Stewart, Exeter; Thos. Russell, Exeter.

B. Sir Walter [12741], by Pedro [11805], Walter Jones, Garnet; Isaac Drinkwater, Rainham Centre.

C. Prairie Queen [14578], by Lord Carlisle [8824], Joseph Salkeld, Stratford; J. & E. Salkeld, Beaconsville, N.W.T.

B. Dixie [12767], by Lord Carlisle [8824], Joseph Salkeld, Stratford; Thomas Dixon, Atwood.

B. Ratler [12745], by Lord Barrington [10140], John Baker, Simcoe, R. Hastlett, Jarvis.

B. Walpole Chief [12746], by Lord Barrington [10140], John Baker, Simcoe; A. Colwell, Erie.

B. Woodhouse Duke [12747], by Lord Barrington [10140], John Baker, Simcoe; L. D. Sharp, Simcoe.

C. Victoria [14561], by Elderridge Duke [7049], Samuel Y. Shantz, Berlin; D. McNaught, V.S., Rapid City, Man.

B. Honest Jimmy [12750], by Young Udora's Oxford [6427], D. McNaught, V.S., Rapid City; R. E. McGregor, Rapid City.

B. Red Rover [9225], by Elderridge Duke [7049], Samuel Y. Shantz, Berlin; D. McNaught, V.S., Rapid City.

B. Emperor of King [12726], by Emperor [8539], John Beasley, Nobleton; M. Murphy, Schomburg.

B. Baron Wild Eyes [12751], by Baron Gwyneth 3rd [6605], Bilton Snarey, Croton; John N. Campbell, Ridgetown.

B. Pelham Champion [12752], by Ogden [11892], Ezra Rittenhouse, Jordan; C. Roland, St. Catharines.

B. Prince Imperial [12758], by Prince of Wales [12757], Benjamin Shuh, Berlin; John Snyder, Berlin.

B. White Duke [12756], by Wild Eyes Gwynn [9531], H. West, Ridgetown; Robert Milton, Guilds.

C. Pride [14566], by Young Roger [10660], H. West, Ridgetown; Robert Milton, Guilds.

B. Halton Duke [12764], by Wandering Willie [9494], George Kitching, Corwhin; Duncan Campbell, Armow.

B. Prinos [12761], by Scarlet Velvet [7833], Joseph S. Thompson, Whitby; C. Lavolette, Virginia.

B. Red Prince [12762], by Prince [12761], George Prout, Zephyr; William Stephenson, Beaverton.

B. General Simcoe [12763], by Prince [12761], George Prout, Zephyr; Joseph Graham, Rothes.

B. Marmaduke [12760], by Aquilla [12759], James Rea, Mimosa; Henry Torrance, East Caledon.

B. Morton Duke [12770], by Wild Eyes Gwynn [9531], John Serson, Ridgetown; N. Thompson, Sims, Dakota.

C. Beauty of Morton [14580], by Baron Gwynn [10891], John Serson, Ridgetown; N. Thompson, Sims, Dakota.

B. Duke of Argyle [12774], by Young Crusade [12087], R. & W. Scott, Harriston; Malcolm Ferguson, Harriston.

B. Prince Royal [12773], by Young Crusade [12087], R. & W. Scott, Harriston; Hugh Shannon, Harriston.

B. Chrontise [12775], by Loo [8907], George A. Wilkerson, Thorold; L. A. Stover, Humberstone.

B. Donald Dinnie [12777], by Young Prince of Seaham [9622], James Patterson, Brucefield; V. Diehl, Stanley.

B. Prince of Peel [12778], by Prince of Wales [12757], J. & F. Gardner, Britannia; David Hammond, Britannia.

B. Lord Barker [12789], by Lord Knightly [10189], Joseph Smith, Aberfoyle; Wm. Barker, Aberfoyle.

B. Pretender 2nd [12790], by Pretender [12947],

Hay & Paton, New Lowell; Jacob Sherrick, Nottawa.

B. Dominion Boy [18791], by 8th Duke of Thorndale [9908], John McGurk, Thornaale; Edward Booth, Thorndale.

C. Lily Languish 3rd [14680], by General Garfield [9998], John B. Carpenter, Simcoe, Joseph Martindale, York.

B. Leon [12880], by Abe [6560], John B. Carpenter, Simcoe; John Alton, Houghton.

B. Leander [12831], by General Garfield [9998], John B. Carpenter, Simcoe; G. R. Corman, Glen Meyer.

C. The Governess [8640], by Earl of Kinnoul [6586], Hay & Paton, New Lowell; Jonathan Sissons, Crown Hill.

B. Prince of Crown Hill, Pretender [12347], Hay & Paton, New Lowell; Jonathan Sissons, Crown Hill.

C. Lily [6965], by Prince Alfred 2nd [3807], Thomas Mairs, Vespra; Jonathan Sissons, Crown Hill.

B. Midhurst Chief [12797], by Vanguard [10563], Jonathan Sissons, Crown Hill; E. Richardson & Bros., Midhurst.

B. Stayner Duke [12796], by Pretender [12347], Jonathan Sissons, Crown Hill; Joseph Johnston, Stayner.

B. Bruce [12793], by Forest King [11823], John E. Scott, Teeswater; Edwin Slatters, Holyrood.

B. Lord Morley [12765], by Baron Constance, [37563], R. S. & J. Robson, Ilderton; Gibson & Winthrop, Raper.

B. General Gordon [12795], by Emperor [7059] James Stocks, Columbus, John Stocks, Columbus.

C. Flower of Glenhill [14598], by Emperor [7059], James Stocks, Columbus; John Stocks, Columbus.

B. Prince Imperial [12807], by Jumbo [11997], W. D. Thomas, Eden Hills; Richard Borden, Nassagaweya.

B. Roan Prince [12806], by Jumbo [11997], W. D. Thomas, Eden Hills; George Thomas, Lowville.

C. Daisy [14601], by Ethelbert [23110], J. D. McFaul, Wellington; Frederick W. Adams, Pictou.

C. Inez [14600], by Pilot, [9077], Hiram McFaul, Wellington; Joshua D. McFaul, Wellington.

C. Rosa De Rena [14603], by Duke of Rock Lake [11229], James Laidlaw, Clearwater, Man.; John Robson, Manitou.

C. Daisy [14604], by Inconstant [12105], Richard Williams, Culloden; N. C. Brown, Danboyne.

B. Farmer's Glory [12780], by Lord Elcho [10154], George Rock, Mitchell; D. De Coursey, Bornholm.

B. Duke of Cornwall [12785], by Earl of Goodness 5th [8514], William Douglas, Onondaga; Henry Trinder, Simcoe.

C. Lady Lorne [14607], by Christmas Duke [6747], George Rountree, Thistleton; John MacKenzie, Owen Sound.

B. Ontario Hero [12815], by British Hero [12814] (99506), James Bain, Vachell; John M. Davie, Virginia.

B. Iron Duke [12820], by Wellington [9511], Thomas Winder, Lyons; Ackett Bros., Lyons.

B. Red Duke of Lincoln [12786], by Lord Beaconsfield [10142], A. G. Pettit, Grimsby; F. A. Nelles, York.

B. Buckhorn Duke 3rd [12826], by Commodore [9773], Jonathan McCull, Buckhorn; Daniel E. Bass, Louisville.

C. Rosebud [14616], by Marquis [8940], Peter B. Kelly, Holstein; Alfred T. Kelly, Holstein.

B. Royal Bismarck [12822], by Marquis [8940], Peter B. Kelly, Holstein; Alfred T. Kelly, Holstein.

B. Beaconsfield 4th [12832], by Beaconsfield 2nd [8128], Richard Hawley, Goderich; James Carnochan, Jr., Seaforth.

B. Crown Prince [12833], by Young Crusade [12087], R. & W. Scott, Harriston; Christie Gebhardt, Ailsfeldt.

B. Lord Barrington [12834], by Marquis 4th of Barrington [11844], D. Mackenzie, Hyde Park; Peter McGregor, Manosy.

B. Lord Raglan [12835], by Waxwork [6012],

George Hickingbottom, Whitby; William Bright, Raglan.

B. Captain Slasher [12839], by British Prince [8173], W. C. McGregor, Tilbury Centre; Chas. Farquerhanson, Tilbury East.

B. Prince Edwin [12836], by Rienzi [9232], John Conworth, Paris; W. C. McGregor, Tilbury Centre.

C. Christina [14614], by Baron Gano 2nd [4578], Ed. D. Morton, Barrie; Richard Monteith, Crown Hill.

C. Jessica [14613], by Baron Gano 2nd [4578], Ed. D. Morton, Barrie; Richard Monteith, Crown Hill.

B. Duke Rolo [12839], by Lord Morley [12765], Joseph H. Marshall, London; John Rossier, Rebecca.

C. Rosaline [14638], by Prince [10301], Charles Edwards, Ingersoll; Robert Sutherland, Ingersoll.

B. Mara Lad [12821], by Gay Boy 2nd [12606], Donald Jackson, Woodville; C. Malcolm, Montgomery.

B. Duke of Athole [12823], by Pretender [12347], Hay & Paton, New Lowell; Allen Flack, Creemore.

C. Jessie Grey [14642], by Yarmouth Duke [9540], Matthew Gilbert, St. Thomas; Messrs. Holmes, Moore & Cartwright, Inwood.

C. Lady Agnes [14641], by Baron Booth [12840], J. C. Burke, St. Thomas; Messrs. Holmes, Moore & Cartwright, Inwood.

B. Baron Booth [12840], by Earl of Goodness 15th [8514], William Douglas, Caledonia; J. Andrews & Son, Southwols Station.

B. Diadem of Balsam [12841], by Diadem [11602], Wm. Ward, Balsam; Geo. McGregor, Epsom.

B. Mazurka Prince [12825], by Mazurka Duke [5703], R. B. Ireland, Nelson; William Dent, Carlisle.

B. Pilot [12643], by The Cavalier [7944], John Glen, Lumley; Wm. Wren, Granton.

B. Royal Briton [12845], by Royal Butterfly [11114], John Snoll's Son's, Edmonton; David Leitch, Eamer's Corners.

B. Perkins [12646], by Prince Hopewell [7856], M. O. Merritt, Smithville; Owen Fathers & Son, South Cayuga.

C. Rosa May [14645], by British Prince [6676], Francis T. Docker, Byng; Mrs. Isabella Crawford, Dunnville.

C. Red Lily [14646], by Waxwork [9506], Joseph J. Kutely, Bond Head; Joseph Hipwell, Bond Head.

C. Lady Jane Young [8261] (vol. 5), by Rufus [3996], Robert Calderwood, Harriston; D. D. & J. Wilkeson, Harriston.

B. Lord Nelson [12848], by Hercules [12347], George A. Wallace, Pousonby; John Brown, Marden.

B. Mono Chief [12849], by Oxford Chief [9047], John Mullin, Hillsburg; John J. White, Mono Centre.

C. Miss Lucy [14650], by Waterloo Prince [6472], Jacob Y. Shantz, Breslau; Ezra Schneider, Breslau.

## ROSE MILDEW.

It is obvious from this description that the fungus of rose mildew is preserved during the winter on decaying rose foliage, that for every infected rose leaf that is burned at least one hundred living spores or seeds will be destroyed at the same time. It is, however, impossible to destroy or deeply bury all infected leaves; but, nevertheless, the more decaying material that is either burned or deeply buried the less spores there must be to invade roses in the spring.

If all gardeners would agree to one course of clear-headed action the effects of many ailments of plants like rose mildew would be materially lessened. But if one gardener is intelligent and industrious and another stupid and lazy, the innocent will always continue to suffer with the guilty.

We believe rose mildew is almost confined in its attacks to roses, and this makes the pest easier to grapple with.—W. G. Smith, in *Vick's Magazine for April*.



## Bees and Honey.



### OFFICERS OF ONTARIO BEE KEEPERS' ASSOCIATION, 1884-

President, Dr. Thom, Streetsville; 1st Vice-President, S. T. Petit, Belmont; 2nd Vice-President R. McKnight, Owen Sound; Secy.-Treas. Jacob Spence, Toronto.

EXECUTIVE COMMITTEE—D. A. Jones, Beeton, Wm. Campbell, Cayuga; S. Webster, Doncaster; F. H. McPherson, Beeton; P. C. Dempsey, Trenton.

Communications on the business of the Association, and Bee-Keepers' Department of the *Canadian Farmer* to be addressed to the Secretary-Treasurer, 251 Parliament St., Toronto.

### MEMBERSHIP ONTARIO BEE KEEPERS' ASSOCIATION.

Some few of last year's members have not yet renewed. Surely now, friends, *THE RURAL CANADIAN* and just this little reminder ought to be sufficient to bring up the list to the full former number at least—a word to the wise.

### HONEY MARKET NOTE.

Toronto seems overstocked in this particular commodity at present, both in comb and extracted. Times have been hard; and, somehow, most people still seem to class honey as a luxury rather than a staple article of diet. Its real virtues are not sufficiently known. Prices in quantity may be quoted nominal, 10 cents to 10½ cents extracted; and 15 cents to 17 cents in section, with dull demand.

### IMMENSE MORTALITY.

Amongst bees not often has there been so disastrous a winter in Canada. Reports from all over indicate extremely heavy losses—in some places a complete "sweep out!" In many instances over half perished, while, however, a few have come through all right. Now ought to be a good time to make the desirable discovery of the proper conditions of safety, especially safety in extra cold seasons. The mode of wintering which has brought bees out this spring in good condition ought to be surely accounted worth knowing and worth telling about. It might also be worthy of record, too—if only properly ascertained the—true cause of death.

It is not sufficient to say the extremely cold winter, for this has been equally intense where the bees are yet alive. Protection, quality of stores, condition of atmosphere in bee-houses and cellars, no doubt, each and all have had influence. Has not the strength, i.e., the bulk of cluster, and so the ability to keep warmth, the most of all to do with it?

But not only a few hives of bees have come through all right. Several bee-keepers report all safe or very nearly so, with only a loss of two or three out of 120. Now surely these really good managers are also good natured enough (at least some of them are) to amply enlighten us all on this all-important point. Theory and practice. We must accept the axiom, effects always have causes. Bees have perished. Bees have survived. How? Why and wherefore.

The eggs of the queen bee are hatched by the heat of the cluster. The bees should be given all possible assistance to maintain the required temperature.

### PROSPECTS FOR THE SEASON.

BY P. F. HOLTERMANN, BRANTFORD.

Reports from all parts of the country indicate that the past winter has been a very severe one on bees. A glance at the previous season may in a measure explain this. Our surplus was chiefly from bees feeding on clover. Those strong, this bloom yielded a profit, while bees that had to build upon the nectar from the flower obtained no surplus. Basswood yielded in a few localities fairly for one day, but many gave no yield owing probably to cold weather. July was very cool. Thistle which requires frequent showers and a moist atmosphere to yield honey, not having these favourable conditions, yielded little. Fall flowers were also largely a failure; added to this the sudden atmospheric changes appeared to cause an unusual consumption of stores during the latter part of summer and during the fall. As a result of this we have colonies left to their own resources, as follows: a fair amount of honey in store at the close of clover bloom upon which they had to depend largely until the latter part of May; the following year brood rearing ceased early as no honey came in. Bees were deficient in stores and enfeebled by age when they went into winter quarters, therefore we can expect nothing but heavy losses. On the other hand careful and progressive bee keepers know what they must expect unless they assist their bees and moderately stimulate late brood rearing. They see as soon as possible that the bees have sufficient stores of a proper kind and are in proper condition. Such men do not lose very heavily.

It also appears that box-hive men have suffered terribly, and no doubt it will be a lesson for such to adopt the more modern and improved appliances in bee-keeping. Since commencing this article I have taken a tour amongst bee-keepers and I find cases where some have been almost entirely exempt from loss and others in the same locality have lost as high as half. One-third of the colonies estimated as lost will perhaps be a pretty correct estimate of the loss. Those wintering their bees outside report the heaviest losses. Bees have no doubt been gathering honey and pollen very plentifully, owing to the warm days and nights we have had, but to-day there are slight flurries of snow and the bees are at home. Later on I will try and send in a report with actual figures of losses. Bees appear to have perished in large numbers after March 1.

### NOTES FROM THE BIENEN ZEITUNG, GERMANY.

BY JULIUS HOFFMAN.

Dr. Dzierzon says. The quietness or dormancy of bees does not depend on higher or lower temperature, but on the condition of vegetation.

It is therefore quite wrong to suppose that bees must not be kept warm in winter, in order to keep them in quiet repose. Instinct makes them keep quiet when no honey or pollen is to be found, excepting some occasional purifying flights.

Foul air and want of water in connection with cold weather are the principal causes of bad wintering. Cold weather will not prevent bees from too early breeding, as low temperature will condense much moisture, which induces bees to breed. A warmer and more even temperature will rather retard breeding at unseasonable times.

The best time for the beginning of brood-rearing is when they begin to carry natural pollen. Bees are taken care of in winter in a dark cellar or similar locality, but plenty of fresh air should be admitted into the cellar and hives.

Bees that will winter well out of dozes or in

the cellar are those that possess every desirable quality as honey gatherers. The summer stand is a proper place to winter bees, and when the right strain is developed we can winter them as successfully as we can our cattle and with as little trouble. Now, my friends, do not go into the "fancy bees" too deeply; secure those which contain the largest number of the desirable and essential requisites which ensure the best results. When you have secured such a strain which contains the described qualities (and you certainly can produce them by careful selection and breeding) then shall we have solved the winter problem, and have the coming bee.

### BUILD UP YOUR HOME MARKETS.

This, we verily believe, is the best advice that can be given to apiarists generally. There should be a steady and growing demand for honey in every locality in America, no matter whether it be a large or small place.

The large markets are well supplied with honey while in the smaller ones it is often a very scarce article. This should not be the case when the honey is produced in the country. Just think of it! The country merchants in all the Western States are continually ordering honey, both comb and extracted, from the wholesale grocers of Chicago, and thus it has to be shipped twice when none would be necessary, if every home market were kept well supplied by the producers near it.

Let every honey producer see to it that all the towns in his immediate vicinity are well supplied with good honey, put up in attractive packages, and this will in a great measure remedy the evil, and keep prices up to a paying basis. The *Indiana Farmer* has the following which is just to the point:

"We know of persons who dispose of good crops of honey at a fair price among their neighbours, while others do not try to dispose of a pound at home, but seek a large market at a loss to themselves."

The example has been often recorded, how an enterprising bee-keeper has built up a local trade which is not only lucrative, but a steady thing, year after year; and when we think of the saving of freight rates and breakages, does it not pay well to look after the home markets? Just think of it! Five hundred or a thousand leaflets with the producer's name and address on them would sell tons of honey every year in almost any neighbourhood. Try it, and astonish yourselves with the result! The only necessity is to have good honey in attractive packages, and energy enough to push the sale and make the market.

### STARTING IN THE BEE BUSINESS.

At the start it will depend altogether on the extent to which you intend to go. If you want only one or a few colonies for honey to be used at home, for study or as ornament to your place, any of the standard works on bee-culture will give you sufficient theoretical knowledge to begin with. In connection with this, you should, if possible, visit some practical bee-keeper, watch him through the various manipulations in the apiary, ask the "why and wherefore" of anything you do not understand. The same course may be pursued if you intend eventually to go into bee-keeping on a larger scale, have at present some other business on which you depend, or to which you are confined, but which you hope some time to leave for the more congenial culture of bees. You should also subscribe for one or more of the principal bee papers. There has, within the last decade, been such a radical change in the management of bees that no sensible man would now think of keeping them as his grand-

father did. But there is at the same time such a constant progress in details and improvements that only by studying the bee papers can you keep up with the times. Though new books are occasionally published, they soon, for this reason, become obsolete in some respect, and it has become necessary to revise and add something to each new edition.

The tyro who intends to enter into bee culture on a scale sufficiently large to enable him to make a living thereby from the beginning, should serve an apprenticeship of a year or two with a practical, extensive bee-keeper, where he may thoroughly learn all the various details of the business. There is no hard or violent work to contend with in the business itself; but the bee-keeping of today is made up of an indefinite number of little matters, which can be learned only by constant study, close application and daily practice. There is, perhaps, no other occupation where the hand and brain have to work as faithfully together to insure success and prevent failures and disappointment as in the bee business. Like any other occupation it has its bright and its dark side, its ups and downs, good seasons followed by bad seasons, frequently low prices, losses through hard winters, unfavourable summers or by disease, and only he, who has only a genuine love for his vocation, coupled with perseverance, intelligence and economy, will be likely to stick to it until the end.

#### BETTER COMB FOUNDATION WANTED.

[Mr. Jacob Spence, the obliging Secretary of the Ontario Bee Keepers' Association, has received the following letter and sends it in for publication.]

Last spring I sent wax to three different comb foundation makers to get made into brood foundation. The wax was made out of cappings the summer before. I sent twenty-five pounds to Mr. A.; thirty-five pounds to Mr. B.; and twenty-nine pounds to Mr. C. The twenty-five pounds of foundation that I got from Mr. A. sagged very badly; it was made six feet to the pound out of soft yellow wax, and not out of the strong hard wax which I sent him. The bees made it into combs very slowly, as it had little or no side walls for the bees to draw out. The thirty-five pounds of foundation which I received from Mr. B. was made four and one-half feet to the pound, out of hard yellow wax; it was worth but very little as the bottoms of the cells were very thick with little or no side walls for the bees to draw out; they could do but very little with it, and had to build the most of the comb on to it; and this was done at the expense of honey. The twenty-nine pounds of foundation which I got from Mr. C. was made out of my own clear white wax, formed out of the very whitest of cappings. This was pure white foundation, six feet to the pound, with thin-bottomed cells and good side walls for the bees to draw out. As it was made just right to suit the bees they drew it out and worked it into combs the quickest of any foundation I ever used; and as it was made from hard white wax, that makes the very strongest foundation, it did not sag any. The combs made from it looked grand; they were the whitest, straightest and the most perfect that I ever saw. If the foundation made out of white wax is made with cells very thin in the bottom and good side walls for the bees to draw out, it will be made into combs just as quick as the foundation made out of soft yellow wax. Fifty pounds of clear white wax made into foundation six feet to the pound will fill forty-four of my hives. Fifty pounds of soft, yellow wax, made into foundation four and one-half feet to the pound, to prevent it from sagging, will only fill thirty-

three of my hives. Bee keepers should send wax to three or more comb foundation makers at one time and the one that makes the best foundation should get the most to make, because foundation is a good thing when properly made.

Woodburn, April 15, 1885. Wm. McEvoy.

#### ROCKY MOUNTAIN HONEY PLANT.

MR. EDITOR,—Your correspondent asks if bee-keepers have had any experience in the growing of the Rocky Mountain honey plant. My experience is very similar to his. I planted it in pots in-doors without success; in a warm place with early cabbage and tomatoes it did not succeed; neither did fig-wort—both requiring more heat and later planting. The Rocky Mountain plant requires a warm place, not planted too early. It resembles the mustard, growing tall with branches of fine clusters of flowers, nice to look at; but does not attract the bees.

I have grown plants for their honey-producing qualities to some extent. The first in season is the crocus, a bulb very easily grown; spider-wort, an herbaceous plant, continues a long time; veronica is a late flowering plant, and like sweet clover, it continues until frost. Among the annuals are the poppy, very attractive; *Eutoca phacelia*, and the well-known mignonette. Among the shrubs are the flowering currant and the barberry, coming as they do just after the apple blossoms makes them very desirable. The clematis, a climbing plant, in autumn attracts the honey gatherers.

There has been a great deal said about the Canada thistle as a honey-producing plant in this country. It is true bees may be seen on it occasionally, but it is not to be compared with the so-called blue thistle, which is no thistle at all, but of the dandelion tribe, a late blooming plant, somewhat of a weedy nature, but very attractive to the bees.

B. LOSEE.

Cobourg.

[Crowded out of April number.—Ed.]

MR. EDITOR,—I notice in your March number a request from J. F. Dunn for information regarding *Cleome integrifolia* as a bee plant.

In the spring of 1877, I took charge of a large apiary in Fillmore County, Minnesota. In connection with and for the benefit of this apiary, several varieties of honey producing plants were grown. Among these bee-plants was a patch of *Cleome*. It commenced flowering early in September and continued in bloom until quite late in the fall, withstanding heavy frosts without injury.

Patches of mignonette, borage, and Chinese mustard were also grown yet none of these plants attracted bees in such numbers as the *Cleome* did. It was alive with them both early and late, and neither wet nor dry weather seemed to materially affect its yield of honey. I never noticed any yellow jackets, wasps, flies, etc., hovering around it.

It is an exceedingly pretty plant but the "disagreeable perfume" spoken of by Mr. Dunn seems to extend to all parts of the plant and is especially noticeable when you violently shake or else bruise it.

It flourishes best in a very rich but compact soil, well supplied with ashes. Any soil well adapted to the growth of onions would be suitable for *Cleome*.

Under favourable circumstances it reproduces itself from scattered seed in Fillmore County, Minn., and I know of no reason why it would not do so here, yet it is not hardy enough to bother as a weed.

I have had no experience with *Cleome* in this country, but I believe it would prove a valuable

honey plant, though like many other bee plants, it may not prove equally valuable in all localities.

M. V. FACKY.

[Crowded out of April number.—Ed.]

#### ELEMENTS OF SUCCESS.

The *Prairie Farmer* well says that "if a person would reach the very highest success in horticulture he must love trees and plants—must love to look at them, to inquire into their wants and requirements, and to administer to their wants as living things. If a man loves a tree for its beauty, for its shade, for its fruit, and for its company, and loves to study varieties of fruits and habits of plants and trees, then he has the first rudimentary qualifications of a tree and fruit raiser, and may enter on work with assurances of success."

The same rule will apply to apiculture. A person who would succeed should love the bees and their products, must love to look at them, ascertain their requirements, and administer to their wants. No others can expect to succeed. Though it is not essential that one should enjoy the eating of honey, it is still desirable that such should be the case—for some human stomachs will not endure its sweetness. In such cases, however, a glass of sweet milk drunk after eating the honey will usually cause a pleasant condition of the system generally, and add to the health of the person using it.

If one loves the honey-bee for its docility and beauty, for its pleasant hum and sporting flight, for its industry and work, for its architectural skill and indomitable energy, then the first principles of a bee-keeper present themselves, and such may safely proceed, expecting ultimate success.

In this, as in all other departments of business, it is only the careful and practical that may hope to succeed. Nature has provided the health-giving delicious nectar in myriads of beautiful flowers, which deck forest, field and garden, and developed the bees to gather this abundant sweetness and store it in quantities far exceeding their wants—providing an opportunity for man to step in and second the efforts of Nature and the bees, and utilize the surplus honey for his pleasure and sustenance.

Bees and flowers are so closely allied, so dependent the one on the other, that we may well love both. What is there in all the Creation so soul-inspiring as a cultivated garden of Nature's flowers, of variegated hues and heavenly grandeur? None but the unfortunate or despondent can fail to enjoy Nature in her garb of beauty, decked by the bounteous hand of Deity!

To produce a garden of living gorgeousness, we may all aspire and long enjoy its gratifying results. We may as well become enthusiasts upon bees and flowers, for apiculture and horticulture go hand-in-hand.

WHAT the future of a colony will be depends almost entirely on the queen. She lays all the eggs and in this manner governs the colony. She in turn is influenced by the amount of stores on hand, by the new honey and pollen carried in by the bees, by the number of bees in the cluster and the amount of warmth they are able to maintain.

Bees may be stimulated to extra exertion in brood rearing by careful work, but it must be done judiciously. Breaking the cappings of the honey in the outside frames will cause the bees to carry it to the centre of the cluster, and is probably the first stimulant we can give. Spreading the combs should not be practised until all danger of cold weather is over and even then it is a dangerous practice for beginners.

## The Grange Record.

### OFFICERS OF ONTARIO PROV. GRANGE.

OFFICE.	NAME.	POST OFFICE.
Worthy Master.....	R. Currie.....	Wingham.
Overseer.....	Thos. S. McLeod.....	Dalton.
Secretary.....	A. Gifford.....	Mouford.
Lecturer.....	D. Kennedy.....	Peterboro.
Treasurer.....	R. Wilkie.....	Blenheim.
Chaplain.....	D. Wright.....	Bauke.
Steward.....	Thos. Hoazin.....	Cashtown.
Asst. Steward.....	Win. Brock.....	Adel-Ido.
Gatekeeper.....	J. P. Palmer.....	Fenelon Falls.
LADY OFFICERS.		
Ceres.....	Mrs. C. Moffatt.....	Edgeville.
Pomona.....	G. Lothbridge.....	Strathburn.
Flora.....	E. M. Crystor.....	Uxihl.
L. A. Steward.....	J. McClure.....	Willacroft.
EXECUTIVE COMMITTEE.		
Thomas S. McLeod, Esq.....	Dalton.	
Chas. Moffatt Esq.....	Edge Hill.	
AUDITORS.		
W. H. White, Esq.....	Chatham.	
S. Bollachoy, Esq.....	Paisloy.	

### LATE SPRING.

The 16th of April, and the first indication of spring weather. Winter wheat all right so far, with two inches of frost out of the surface, but several inches of frost below; grass quite safe, with plentiful irrigation from snow water much of which, owing to the flag of frost below, will have to pass over the surface into open drains, to the loss of a certain amount to the land over which it passes, that, under existing circumstances, is unavoidable. There are still large snow banks in lanes and around fences, which will keep fields wet for some time, but will benefit the land, as by the time that it will be melted the land will be sufficiently thawed out to strain all the fertility out of the snow water. Though it may retard seeding for a few days longer, the soil will be the gainer.

Huron Co.

S. D. G.

### DANGER ON CLAY.

In a late season like the present, those on light soils have much advantage and little to fear from early seeding; but, on stiff clays and clay loam, the danger of working the land too soon is likely to be the error which in nine cases in ten is sure to do harm. What is well begun is half done; but clay land wrought before thoroughly dry had better be undone, as in that state a good seed bed cannot be made and the ground is permanently injured by being rendered lumpy and stubborn. Better wait until the land is well dried, when, with the deep action of the frost during the past winter, the soil can be got in fine tilth, and a few days' delay will be more than counterbalanced by the rapid growth that will follow.

Seed put in sodden or cloddy clay soil cannot make a good start unless in thoroughly under-drained land and in a fine showery season; while with a fine seed-bed a good start is certain whether showers follow, or not; and after progress is certain in the latter but not in the former; but under a too hasty cultivation on clay soil much extra labour must follow in fining the surface. The land will be out of order for a year or two after, unless broken up by another winter's frost such as that just past. Let farmers, therefore make haste slowly till the land is fit to work finely, unless they are prepared for disappointment, or can afford to give much labour in breaking lumps, and run the chances of having two or three poor crops.

S. D. G.

### A SUGGESTION.

Editor Rural Canadian:

SIR,—Through the courtesy of Mr. Phipps I have been furnished with his second report on Forestry, which contains much practical, useful information on the preservation and replanting of timber, the climatic benefits of timber belts, and the injurious effects of the entire destruction of

forests to an agricultural province like Ontario. I believe the pamphlet should be studied by every one who has an acre of land in his own right; and that our Provincial Government is desirous to put it where it will do the most good, I would suggest that the Secretary of each Division Grange furnish Mr. Phipps with the address of the Secretary of each Sub-Grange in his Division, and that these reports be read and discussed in every Grange in our Province, in hopes that steps be at once taken to check the total destruction of our remaining fragments of forest, and some of the plans proposed be applied to furnish a fresh supply before the whole surface of the country will become an arid, treeless waste, exposed to Arctic winds, roaring blizzards, and rainless scorching periods.

Egmondville, April 12, 1885.

Sec., Div. 24.

### NOTES FROM HURON.

MR EDITOR,—Please find enclosed the sum of \$1 for the annual subscription due by me for THE RURAL CANADIAN, FARM JOURNAL, THE CANADIAN FARMER AND GRANGE RECORD, the paper with the long name. I hope that it will do good in proportion to the name. Spring has now set in and the snow is fast disappearing, there is only a little left around the fences and the north sides of hills, and a little in the bush and on the north side where the sun does not shine much during the day. Some people are ploughing where the land is dry. The spring is late for this part of the country, and the winter has been unusually severe for the past three and a-half months. There were no thaws, the snow was dry and the fall wheat has come out all right this spring in this section of the country (Huron County). Feed for cattle has been very scarce on account of last summer having been so very dry, so that there was little straw; but pressed hay came in to aid those that were in need and no doubt saved the lives of some animals for a time. The weather has been warm for this time of the year, the thermometer ranging from sixty-five to eighty degrees above zero for the past four days.

Wingham, April 3, 1885. ROBERT CURRIE.

### WINTER WHEAT.

The returns of April 1 to the United States Department of Agriculture indicate a reduction of over 10 per cent. of last year's area in winter wheat. The aggregate shortage amounts to 3,000,000 acres. A decrease is reported in every State except Oregon. It is 22 per cent. in Kansas and Virginia, 20 in Mississippi, 15 in California, 14 in Alabama, 12 in Tennessee, Illinois and Missouri, 11 in New York and North Carolina, 10 in Maryland and Texas, 8 in New Jersey, West Virginia, Kentucky and Indiana, 7 in Georgia and Ohio, 6 in Pennsylvania and Delaware, 5 in Michigan, 3 in Arkansas and 2 in North Carolina. The present condition of wheat as reported is worse than in 1888. It is 77 per cent. against 96 last year and 80 in 1883. In 1881, the year of lowest recent rate of yield, the condition April 1 was 85, and serious loss was sustained afterward. The real status of the crop will be better shown a month hence, when the vitality of the roots has been demonstrated and the character of the spring determined. On the present showing, the reduction of yield on the basis of last year's production promises to be nearly 40,000,000 bushels, on account of reduced area, and more than 60,000,000 from winter killing and low vitality. Whether the crop will exceed 400,000,000 bushels, or fall short of it, depends upon the reliability of present appearances and on future condition, affecting growth and ripening. The soil was in bad condition at the

time of seeding on the Atlantic coast from New Jersey to Georgia, and in West Virginia and Tennessee. It was better in the South-west and in Missouri, Illinois and Michigan. In the Ohio valley it is scarcely in a medium condition. Damage by the hessian fly was not severe, though worst in Indiana, Illinois, Missouri and Kansas, where injuries have occurred in three-tenths of the reported territory.

### DIVISION GRANGE MINUTES.

The first quarterly meeting of Prince Albert Division Grange was held at Hensall on the 26th ult. In the absence of Master, Bro. Halls was put in the chair. By request of Master, Bro. Smillie explained proceedings of Provincial Grange; Bro. McMordie gave some further explanations on the same subject. The advisability of an elective advisory board for our Experimental Farm at Guelph, which was laid over at last meeting, was now taken up and thoroughly discussed pro and con., when it was moved by Bro. McMordie, seconded by Bro. McQuade, and carried without amendment:—That this Division, being aware of the great importance of the College and Farm to the farmers of Ontario, desires to use its best influence for the entire success of these institutions and wishes to make them as useful as possible. We remember with pride and gratitude that at the request of our Division during an excursion and assembly at the Farm, our government permanently endowed the College. In order to place the Farm on a more permanent basis and give it more assistance and place it on a parallel with all other similar institutions, we desire to see an elective advisory board of practical farmers appointed to assist and advise Professor Brown in the management and thus relieve him from the effects of adverse criticism; such board to be elected from or by the Agricultural and Arts Association, or on the plan of the election of boards in university, or any other plan that may seem best to the Minister of Agriculture, that our delegate to Provincial Grange advocate that body to memorialize the Government for this purpose. Proposed by Bro. McMordie, seconded by Bro. Smillie, and resolved,—That this Division considers that for our midsummer holiday it is advisable to have an excursion sometime next June to Kincardine; that this Division will join with any other in getting up the excursion, and that the fixing of the day be left to Bro. Gifford; that our Secretary correspond with him forthwith and ask him to fix the time, and suggest the Divisions that will be likely to participate, and to assure them that we will use our best endeavours to make it a success, and that these resolutions be published in local papers, the two *Bulletins* and THE RURAL CANADIAN.

M. McQUADE, Sec., D. G. 24.

### HAVE YOU THE STICKING QUALITY?

The sticking quality is essential to full success in farming, as in most kinds of business. It is an element of success in Grange work, as every Patron knows when he looks over the situation and takes account of discouragements. There are instances of Granges where no progress was made for three or four years, but members had the sticking quality and at last found their reward for patient waiting and determined adherence to organization. In one case a Grange met regularly for two years without a single addition to its membership, and with innumerable discouragements—the Grange made the object of assaults, ridiculed, maligned and opposed by every influence that could be used to increase difficulties and discouragements. Yet, the sticking quality remained unimpaired, and that Grange



at last began to receive favourable notice even from its opposers, and its membership ran up to 800. In another case, where similar conditions prevailed, no progress was made for five years. Then a change of sentiment occurred, and the Grange added in a single year a hundred to its membership, and became a potent factor in general affairs. This sticking quality helps wonderfully when the Grange meets discouragements, and it tends to increase self respect of the members. They are sure at last to receive such consideration as they deserve, if they will abide by the principles of the Order and remain firm against all opposition, determined to succeed, no matter what influences are brought to bear against them.—*Husbandman*.

### BEAUTIFY YOUR HOMES.

The home should be as beautiful and pleasant as it is possible to make it. Home is the place of rest and pure enjoyment. It is the refuge from care, trouble, and all the tumults and turmoils of life. It is the one spot where the heart's purest affections garner themselves and seek their chosen resting place. It is the woman's first duty to make this dwelling place, over which she is the mother-queen, as cheery, cozy, and lovely as she can. The first requisite for this desired consummation is that she herself be happy, hopeful, pleasant, and contentedly agreeable. To become this she must live hygienically, she must eat proper food, wear comfortable clothes, and not be oppressed by too many cares and burdens. If she is her own housekeeper, she should study to do her work on the most simple and easy plan, cook but a few dishes at a time, and have each as perfect in itself as possible.

Woman has no more important duty than that of making home pleasant. Neatness and cleanliness are indispensable to a cheery, cozy-looking room. A plain room, plainly furnished and scrupulously clean, is far more bright and beautiful than a more pretentious one richly adorned with costly furniture that is soiled, mutilated, and always in disorder. A few thrifty, nicely kept flowering plants and trailing vines are one of the most enlivening adjuncts to a living room, and a sheltered, sunny window is far better for them, in moderately cool weather, than the over-heated and often dusty inside position, and they are just as easily seen also. A few nice pictures on the walls are always pleasing; but no picture that shocks the feelings should have a place there. Pictures of war, murder, death-bed scenes, animal fights, and other soul-harrowing views, ought never to be made at all, and especially allowed within the sacred precincts of home. Bright, gay, happy and inspiring views alone should meet the gaze of the family circle. Should there be unsightly objects in the room, or recesses that contain necessary adjuncts to comfort and convenience, a bright chintz curtain will screen them from view, and will of itself make a pleasant resting place for the eye. Should a bit of plastering fall from the wall, a piece of white muslin neatly pasted over the place will hide the defect and save all further scaling off and drippings of litter. In a thousand ways one can veil the ugly and add to the beautiful, until the humblest little home may become a very bower of pleasantness and cheerfulness.

The love of the beautiful needs the fostering care of every one who would make life pleasant and happy. Whoever creates a lovely picture, whether on canvas, in a poem, or on the broad brown bosom of mother earth, or in a cozy, cheerful home, adds to the world's priceless treasure, and does something towards elevating, refining, and beautifying the race.

### MOTHER'S GIRL.

Sleeves to the dimpled elbow,  
Fanned in the sweet blue eyes,  
To and fro upon errands  
The little maiden flies.  
Now she is washing dishes,  
Now she is feeding the chicks,  
Now she is playing with pussy,  
Or teaching Rover tricks.

Wrapped in a big white apron,  
Pinned in a checkered shawl,  
Hanging clothes in the garden,  
Oh, were she only tall!  
Hushing the fretful baby,  
Coaxing his hair to curl;  
Stepping around so briskly,  
Because she is mother's girl.

Hunting for eggs in the haymow,  
Petting old Brindle's calf,  
Riding Don to the pasture,  
With many a ringing laugh,  
Coming whenever you call her,  
Running wherever sent,  
Mother's girl is a blessing,  
And mother is well content.

In arranging for summer picnics, says the *Husbandman*, that will be held by many Granges, it is advisable that all fussy display be left off the programme. The picnic, to yield the best result, should be as free from care as it can be without hurtful neglect of any requirement. Bands of music are often employed at considerable cost of money, and with questionable propriety when the cost is out of proportion to the resources of the Grange. These meetings, to be most productive of good, should have the exercises so planned that they will yield pleasure to all concerned. But this is not possible when many of those most interested are burdened by excessive labour imposed by the meetings. In some cases speech making is not only admissible, but advantageous to all concerned. In other meetings it may be well to dispense with formal addresses. Everything must be left to the good judgment of those who have the management, and they will manifest good judgment when they leave off everything that has the character of fussy display.

### FARMING IN BABYLON AND EGYPT.\*

In "Egypt and Babylon," an interesting book recently published, we find the following respecting agriculture on the banks of the Nile and Tigris. It will be noticed that the writer deals with his subject at a period several centuries before the Christian Era:—

The primary source of the wealth of Babylon was its agriculture. Herodotus tells us that the yield of grain was commonly two hundred fold, and in some instances three hundred fold. Pliny asserts that the wheat crop was reaped twice, and afterwards afforded good keep for beasts. When Babylonia became a province of the Persian Empire, it paid a tribute of a thousand talents of silver, and at the same time furnished the entire provision of the Court during one-third of the year.

Notwithstanding these calls upon them, its satraps became enormously wealthy. To the wealth obtained by agriculture is to be added that derived from commerce, and from conquest. Scripture makes allusion to the agricultural wealth of the country when it enumerates among the chief calamities of the final invasion, the "cutting off of the sower, and of him that handled the sickle in the time of harvest" (Jer. i. 16); and, again, when it makes special mention of the "opening of the granaries," as a feature in the sack of the city (*ibid.* ver. 26).

The customs connected with farming and cattle keeping in Egypt, noticed in Exodus and the later books of the Pentateuch, include, besides the cultivation of certain cereals already mentioned: (a.) the comparative lateness of the wheat and *doora* harvest (Ch. ix. 31-32); (b.) the leaving of stubble in the fields after the gathering in

of the crops (Ch. v. 12); (c.) the general cultivation of the land after the fashion of a garden, (Deut. xi. 10); (d.) the employment of irrigation in such a way that the "foot" could direct the course of the life-giving fluid (*ibid.*); (e.) the cultivation of fruit trees, (Exod. ix. 25; x. 15); and (f.) the keeping of cattle, partly in the fields, partly in stalls or sheds, where they were protected from the weather (Ch. ix. 19-25). With respect to the first of these points, it may be observed that there is exactly the same difference now as that which the writer of Exodus notes—"Barley ripens and flax blossoms about the middle of February, or, at the latest, early in March," while the wheat harvest does not begin till April. There is thus a full month between the barley and the wheat harvest. The *doora* is also a late crop.

The mode of reaping wheat which prevailed in ancient Egypt is amply represented upon the monuments, and appears to have been such as to leave abundant stubble in the fields, as implied in Ch. v. 12. Not more than a foot of the straw was cut with the ear, two feet or more being left. The barley was probably reaped in the same way.

It is not, perhaps, quite clear what is meant in Deut. xi. 19, by the land of Egypt being cultivated "as a garden of herbs"; but most probably the reference is as Wilkinson suggests, to the ordinary implement of cultivation—the plough—being largely dispensed with, and a slight dressing with the hoe, if even so much as that, used instead. Herodotus witnesses to the prevalence of this method of cultivation, and the monuments occasionally represent it.

The absolute necessity of irrigation, and the nature of the irrigation, implied in the expression, "Where thou sowest thy seed, and waterest it with thy foot" (Deut. xi. 10), receive illustration from the pictures in the tombs, which show us the fields surrounded by broad canals, and intersected everywhere by cuttings from them, continually diminishing in size, until at last they are no more than rills banked up with a little mud, which the hand or "foot" might readily remove and replace, so turning the water in any direction that might be required by the cultivator.

Fruit trees are represented on the monuments as largely cultivated and much valued. Among them the vine holds the foremost place. A sceptical critic was once bold enough to assert that the statements in the Pentateuch which implied the existence of the vine in Egypt were distinct evidence of "the late origin of the narrative." But the tombs of Benihasara, which are anterior to the Exodus, contain representations of the culture of the vine, the vintage, the stripping off and carrying away of the grapes; of two kinds of wine presses, the one moved by the strength of human arms, the other by mechanical power; the storing of the wine in bottles or jars, and its transportation into the cellar. No one now doubts that the vine was cultivated in Egypt from a time anterior to Moses. The fig and the date bearing palm were likewise grown for the sake of the fruit, grapes and figs constituting the Egyptian lord's usual dessert, while the last mentioned fruit was also made into a conserve, which diversified the diet at rich men's tables.

The breeding and rearing of cattle was a regular part of the farmer's business in Egypt, and the wealth of individuals in flocks and herds was considerable. Three distinct kinds of cattle were affected—the long-horned, the short-horned, and the hornless. During the greater part of the year they were pastured in open fields, on the natural growth of the rich soil, or on artificial grasses which were cultivated for the purpose; but at the time of the inundation it was necessary to bring them in from the fields to the farmyards or villages, where they were kept in sheds or pens on ground artificially raised, so as to be beyond the reach of the river. Thus the cattle generally had "houses" (Exod. ix. 20), i.e., sheds or stalls, into which it was possible to bring them at short notice.

\* Egypt and Babylon from Sacred and Profane Sources, by George Rawlinson, M.A. New York: Charles Scribner's.



## HOME CIRCLE.

## RUSSETS.

A late March twilight, with a bitter frost in the air, the new moon just dipping its golden horn behind the maple swamp in the west, and the ground sounding crisply under foot. We had just come in from foddering the cattle—"we" sounds rather singularly when you reflect that it meant Kitty and me, two girls of seventeen and nineteen; but you see there wasn't any one else to do it. Father had been bed-ridden ever since that last attack of paralysis, and we could afford to hire no one to take his place about the farm.

"I don't pity them gals," Neighbour Dyson said, "They might sell the horse and cow."

Neighbour Dyson had generously offered us something less than half-price for them, thinking no doubt that we would be thankful to jump at the chance. But Kitty and I, after taking the matter into consideration, thanked him, and declined politely.

"We couldn't keep house without old Mooley, could we, Addy?" said my sister, "there are so many nice dishes we can make for poor father, if we have plenty of good, rich milk and cream. And the butter that we should have to buy at Neighbour Dyson's city prices would go far to counterbalance the money we should get for Mooley."

"As for the horse," said I, "he eats but a little; and how on earth could we get around the country, even to the post-office, such weather as this, if it wasn't for old Dobbin that we have had ever since I can remember."

So it happened that on this especial March evening we had just come in from attending to the wants of our live stock.

I was in great spirits, playing with pussy, who came to meet us with her plummy tail erect; but Kitty leaned sadly against the wooden mantel and looked into the fire with mournful eyes.

"Kitty," cried I, at last, "what does make you so dull?"

"To-morrow is the third of March," said she gravely.

"What of that?" I demanded.

"Don't you remember? The interest on the mortgage comes due to-morrow?"

"So it does," said I, my radiant face falling faster than the thermometer on a freezing day. "Thirty-five dollars! And we have nothing to pay it with, except the fifteen dollars that Laura Osgood paid for the old melodeon!"

"Perhaps Willis Avery would wait!" suggested Kitty.

I drew myself up slightly.

"I don't choose to ask him to wait," said I.

Now it happened that Willis Avery, who held the mortgage on our homestead, was the son of a neighbour, and an old play-fellow and a boy-beau of my own, who had gone to the prosperous young city a few miles north of us and commenced business on his own account, and I had a particular aversion to asking aid or help of him in any way. I might be poor, but I was also proud, and Kitty was quite sympathetic enough to understand me.

"But then what are we to do?" said Kitty.

I sat down on the hearth rug, with my chin in my hands, and stared earnestly at the big crackling black log. Pussy crept away and nestled down in the corner, as if she knew by instinct that there was a change of temperature.

"Look here, Kitty," said I, suddenly. "Those russet apples!"

"Well?"

"We can sell them. There are eight barrels at least. Eight barrels at \$2.50 a barrel—"

fifth the price. Apples are a drug in the market."

"Here, I grant you; but not in the city. I will take them to Mapleton and sell them."

"You will, Addy?"

"And why not? Squire Dyson would charge at least twenty per cent. commission, and make a favour of it at that. I can't afford either the price or the patronage. Don't say anything about it to father. He would only fret and raise objections. What must be done, must be, and I am the girl to do it."

"But, Addy, how? All this seems so perfectly wild and visionary to me."

"Well, it needn't; for, believe me, it's the most practical thing in the world. All we have to do is to sort the apples out in barrels, nice and sound—I can easily do it by lantern-light to-night—and to-morrow morning, we'll rise early, harness old Dobbin to the lumber waggon—"

"But how are we to get the heavy barrels up into the waggon?"

"Goosie!" cried I, laughing, "can't I put the barrels up into the waggon while they're empty and fill them at my leisure? And I'll have them sold at Mapleton before you've got the pork and cabbage boiling for dinner."

"But where will you go?" asked Kitty.

"O, I know of lots of places. I went once to town with Obadiah Fairweather, when he sold a lot of cheeses. I've a pretty good idea of the locality of the commission stores, I can tell you."

"After all, Addy," hesitated my conservative little sister, "it isn't a woman's work."

"Why isn't it, I should like to know, so long as a woman can do it? At all events, a woman must pay her debts—so if you'll hurry up the tea I'll be off to the barn."

"And what shall we tell papa?"

"Oh, he'll think I've gone to singing-school with the Dyson girls, and I don't think it's a Christian duty to undeceive him," answered I.

But, notwithstanding the brave face I put upon affairs, my heart quivered a little the next day, as I drove toward Mapleton, with the scarlet stain of sunrise dyeing all the east, and my own cheeks flushed with the keen morning air.

But it wasn't so bad, after all. With pardonable egotism, I supposed that every one would be staring at me; but on the contrary a young woman selling apples might be the commonest sight in the world, so little comment or surprise did it apparently excite. Mr. Holloway, of the firm of Holloway Brothers, produce and commission merchants, didn't want any apples, I speedily learned.

"Just bought a shipload from Albany," said he, as carelessly as if shiploads of apples were as common a purchase as ten cents worth of tape. And I drove on, beginning to feel infinitesimally small.

Mr. Lovejoy could give me a dollar a barrel. "Apples wasn't worth no more at this season of the year!" And I whipped old Dobbin up, determined to carry them home again, sooner than sell at that price.

At the next place where I stopped, a pleasant-looking, middle-aged man came out and critically examined my apples.

"Do they hold out like this all the way down?" he asked.

"I'll warrant them," said I, carelessly.

"How much?" he asked.

"Two dollars and a-half a barrel."

He reflected.

"It's a good price," said he, as if he were talking to his own vest buttons; "but then they look like good apples, and we've a tolerably large western order to fill. I'll see what my partner thinks."

store, and I, happening to glance up, saw the words painted in black letters over the door: "Hull & Avery."

My first impulse was to drive on and leave the chance of a bargain behind me; my next to sit still and await my fate as Providence dealt it out with me. And presently out came Willis Avery himself.

"I think we will take your load, if—Why!" breaking short off, "it's Addy Walters!"

I coloured scarlet.

"Yes," said I, as composedly as possible. "Good morning, Mr. Avery. I shall be obliged if you will examine the fruit as speedily as possible, as I am in a hurry."

"Oh, certainly." He looked as if a nipping frost had chilled his enthusiasm in the bud, and I secretly exulted within myself.

Mr. Hull bought the load of apples, and said if I had any more at the same price—and of the same quality, he cautiously added—he would be happy to take them. Willis Avery touched his hat, and I drove away as loftily as Queen Boadicea in her chariot of old.

"Just thirty-five dollars, counting in the melodeon money," cried Kitty, gleefully. "And now Mr. Avery may come as soon as he likes!"

She had scarcely spoken the words before there came a knock at the door, and in walked no less a personage than Mr. Willis Avery himself. I received him with the air of an empress.

"Your money is ready, Mr. Avery."

"I was not thinking of the money, Addy," said he almost reproachfully. "Do you think one's mind runs always on money?"

"Mine does, a good deal," said I, laughing.

"But I had no idea you were reduced to this. I did not know—"

"Mr. Avery, this is scarcely business-like," I interposed.

"Addy," said he abruptly, "I admired your spirit and courage to-day. I always liked you as a girl, but now—"

"Well?" for he hesitated.

"I would do something more, if you would let me. I would love you."

I did not answer. In truth and in fact, I could not!

"Dear Addy, will you let me sign back the old place to your father on our wedding-day?" he asked, earnestly.

And somehow he had got hold of my hand, and somehow, before I knew it, we were engaged!

"This is all very ridiculous of us," said I, "particularly as I had resolved never to marry since we had that quarrel about my dancing with Gerald Ferguson at the Fourth of July picnic."

"I'll promise you never to be jealous again," said Willis Avery.

Kitty was jubilant, when she heard it all.

"Our troubles are at an end," said she, "and all because you would take that load of russet apples to town yourself."

"That doesn't follow," said I, sagely.

But for all my philosophy I did believe a little in fate, and I've always liked russet apples since.

## THE ART OF MAKING SOUP.

The hand that can make good soup unfailingly has arrived at a stage in the culinary art not reached by any except a good cook. Therefore, when our correspondent can succeed in having her soups, not sometimes but always, perfect, she need never fear in venturing among the other branches of cookery, because the very knowledge and tact necessary in the one case will be sure to guide her unerringly in the others.

a mystery they don't seem to have the desire or ability to understand. Yet, when properly made, there is nothing more palatable and wholesome. Among the well-to-do proportion of every community it forms a very important part of the dinner, and there is every reason why it should not be so generally discarded as it is by the poorer classes, for it is not only nourishing, but can be made to constitute a large portion of their diet, with quite as much if not more economy than is possible in the use of other dishes.

Every utensil used in the cooking should be scrupulously clean. The saucepan covers should be looked after, and their rims, and even handles, not neglected.

Watch your fire, and should there be the least smoke, always remove your saucepan to a safe distance when you have occasion to lift the lid.

The meat should be lean, and used as soon after killing as possible.

Avoid purchasing a piece of meat that would require any washing before going into the pot.

Do not put the bones in until they are first pounded into small pieces.

If your meat and bones are fresh, that is, uncooked, they should be put into cold water. On the other hand, when they have been previously fried or browned, boiling water only is the proper thing, and this should be added a little at a time.

Make your soup the day before it is wanted. Let it stand till cold, and then remove all the fat that has risen to the surface.

Beware of a hot fire. Simmering is the life, as boiling is the death, of any good soup.

If your soup is to contain vegetables, let these be boiled a little while in separate water before adding them.

In seasoning, bear in mind that it is much safer to have too little than too much, a precaution especially needful when you are adding the salt.

Do not add cream or milk without first boiling them separately and straining them. And when added they should be boiling hot.

Whenever an egg is to be added, do not put it directly with the body of the soup; put a little of the latter in a cup, and after allowing it to cool for a minute, mix the egg thoroughly with it, and then pour it into the soup.

Keep your soups always in stoneware or china, and, when stirring or skimming them, use a wooden spoon.—*The Caterer.*

#### AMMONIA.

Ammonia is cheaper than soap, and cleans everything it touches. A few drops in a kettle that is hard to clean make grease and stickiness fade away, and rob the work of all its terrors. Let it stand ten minutes before attempting to scrape off, and every corner will be clean. It cleans the sink, and penetrates into the drain-pipe. Spots, finger-marks on paint disappear under its magical influence, and it is equally effective on floor and oil-cloth, though it must be used with care on the latter or it will injure the polish. There is nothing to equal it in cleaning the silverware, and it gives a higher polish and keeps clean longer than anything else. If the silver be only slightly tarnished put two table-spoonfuls of ammonia into a quart of hot water, brush the tarnished articles with it and dry with a chamois. If badly discoloured, they may need a little whiting previous to the washing. An old nail brush goes into the cracks to polish and brighten. For fine muslin or delicate lace it is invaluable, as it cleans without rubbing the finest fabrics. Put a few drops into your sponge bath in hot weather, and you will be astonished at the result, as it imparts coolness to the skin. Use it

to clean hair brushes, and to wash any hair or feathers to be used for beds or pillows. When employed in anything that is not especially soiled, use the waste water afterwards for the house plants that are taken down from their usual position and immersed in the tub of water. Ammonia is a fertilizer, and helps to keep healthy the plants it nourishes. In every way, in fact, ammonia is the housekeeper's friend.—*Annie L. Jack.*

#### THE WAY AND THE END.

Oh, Thou who only art the end,  
Thou art the only way;  
And in our suffering Master's track  
Through many a weary day,  
I've journeyed on, and oft have said,  
Enough! Lord, let me die;  
But quickly Thou hast answered me,  
Fear not, My help is nigh.

How long, Oh Lord, Oh Lord the End,  
Wilt thou be but a way?  
Frail, sinful men, my fathers were,  
Not better I than they;  
Oh, take me to Thyself, I said,  
Enough! Lord, let me die;  
But Thou again hast answered me,  
Fear not, My help is nigh.

Shall I, who chose Thee for the end,  
Refuse Thee as the way?  
Thou, too, wert watched by evil eyes,  
Men sought Thee for their prey;  
I'm weary of the strife, I said,  
Enough! Lord, let me die;  
But Thou once more hast answered me,  
Fear not, My help is nigh.

#### THE JUDGMENT OF AN EAST INDIAN SOLOMON.

In "A Fly on the Wheel; or, How I Helped to Govern India," by Lieutenant Colonel Thomas H. Lewin, the author tells this quaint story:

"I was sitting with the Rajah on the raised platform in front of his house, drinking tea in the cool of the evening. Suddenly our peaceful, silent smoking was disturbed by a young and very pretty girl, with flowers in her hair and silver ornaments on neck and arms, who rushed up the ladder and threw herself at the Rajah's feet in a passion of tears. After her ascended slowly, one by one, a number of villagers wrapped in their long homespun mantles, who quietly sat down on the platform to the right and left of the chief.

"The Rajah smoked on silently, until the woman's sobs had grown somewhat less violent, when he remarked quietly: 'Weeping is good for women.' A few more puffs of fragrant tobacco, and, as the sobbing still continued, he added with solemnity: 'Three conditions are to be avoided: First, not to be able to weep; second, to weep without knowing for why; third, to weep too much.' The last condition was pronounced with impressive distinctness, and an assenting murmur went round the assembly. The girl raised her head.

"My father! I cannot live with Tawngey. I hate him!"

"What has he done? Has he beaten you?"

"No; he has not beaten me; that I should not have minded. He suspects me. He watches me, and I will not endure it. I demand to be divorced. Oh, my father, be it on your head!"

"Tawngey, come forward, thou son of foolishness! What is this I hear?"

"Tawngey appeared, slinking shamefacedly from the depths of the crowd. First making a lowly obeisance, he sat down before the chief. 'My lord,' said Tawngey, 'I saw her flirting with—'

"It is false—it is false!" vehemently cried the girl, dashing away her tears. 'I went with the other girls to draw water in the stream, and Adal's sweetheart Pawthee came and began laughing, and so we splashed him with the water. Then this man (pointing with scorn-

trated scorn at the wretched Tawngey), this man was spying behind a tree, and he came and dragged me by the arm and abused me before them all. I have never suffered such shame. Release me, oh my father! I will not live with him.'

"Here she again prostrated herself at the Rajah's feet. A dead silence ensued, broken only by the girl's sobs. Tawngey looked as though he wished the earth would swallow him, but he said not a word. Suddenly the Rajah spoke again and gave orders.

"'C you and you' (pointing to two or three elders among the spectators), 'take away these two wicked ones, who did not obey the holy law. Strip them of all their clothes, save one cloth—only to the woman, and shut them up together in the great empty guest-house. In the morning I will hear them again. Enough! I have spoken.'

"So the young couple were hustled off and shut up in a bare empty house, with but one garment between them. The night was very cold, and as I pulled my thick wadded quilt over my shoulders before going to sleep, I admired the shrewd wisdom of the Rajah.

"In the morning, when their clothes were handed in to them, and the door was opened to conduct them before the chief, they quietly slipped away hand in hand, and departed peaceably to their own abode."

Build a little fence of trust  
Around to-day;  
Fill the space with loving work,  
And therein stay.

Look not through the shell'ring bars  
Upon to-morrow.  
God will help thee bear what comes  
Of joy or sorrow.

RAWLINSON'S "Seven Great Monarchies." 3 vols., 12 mo., cloth, extra gilt top. (New York: John S. Alden.) Even in this age of cheap literature, the above edition of "The Seven Great Monarchies of the Ancient Eastern World" may be looked upon as a marvel of cheapness, excellence, and typographical art. Rawlinson's is undoubtedly one of the greatest works on ancient history. It covers the ground more completely and yet in a more readable style than any other similar history. Speaking of it the *Kansas City Times* says:

"A masterpiece of history. The reader almost feels that the author has walked hand in hand with the heroes of almost prehistoric periods, so familiar is he with the facts of olden times. When he describes an Assyrian sunset, or a Chaldean home, the reader is led to forget the long centuries that separate these scenes from modern times. The deepest antiquity is imbued with the freshness of a bright and living present, full of realities, shrouded in the gloom of defeat, or made radiant with the glories of some Babylonian king. Remoteness of the times treated of has not obscured the author's work, but has invested it with the elements of romance. When he brings the bloom of health to the cheeks of those who perished 2,400 years before Christ, and analyzes character, describes cities, pictures battles, and sanctions all with the matchless accuracy of a vast erudition, his book leaves a telling impression on the mind. His reserved knowledge is wonderful, and substantiates the main narrative in excellent annotations and accurate references to original sources of historical information. It is the greatest historical work of the times."

#### YOUNG MEN! -READ THIS.

THE VOLTAIC BELT CO., of Marshall, Michigan, offer to send their celebrated ELECTRO-VOLTAIC BELT and other ELECTRO-APPLIANCES on trial for thirty days, to men (young or old) afflicted with nervous debility, loss of vitality and manhood, and all kindred troubles. Also for rheumatism, neuralgia, paralysis, and many other diseases. Complete restoration to health, vigour and manhood guaranteed. No risk is incurred, as thirty day's trial is allowed. Write them at once

## YOUNG CANADA.

## BACK AGAIN.

The chill snows lingered, the spring was late,  
It seemed a weariful while to wait  
For warmth, and fragrance, and song, and flowers,  
And balmy airs and delicious showers.

But we bided our time, and with patient eyes  
We watched the slow-repenting skies,  
Till at last one April morning we woke  
To find we were free of the winter's yoke,

And a rush of wings through the rushing rain  
Told us the birds were back again.  
A joyous tumult we heard aloft—  
Clear, rippling music and flutterings soft.

So light of heart and so light of wing,  
All hope of summer, delight of spring,  
They seemed to utter with voices sweet,  
Upborne on their airy pinions fleet.

Dainty, delicate, lovely things!  
Would that my thoughts, like you, had wings  
To match your grace, your charm, your cheer,  
Your fine melodious atmosphere!

Precious and beautiful gifts of God,  
Scattered through heaven and earth abroad!  
Who, ungrateful, would do you wrong,  
Check your flight and your golden song?

O friendly spirits! O sweet, sweet birds!  
Would I could put my welcome in words  
Fit for such singers as you to hear,  
Sky-born minstrels and poets dear!

—Celia Thaxter, in *St. Nicholas* for April.

## LEARN TO GRAFT.

Every farmer's boy should learn to graft. Few occupations give more pleasure or a greater reward. To convert a wild and thorny tree into one bearing large and delicious fruit is a wonderful and fascinating process. Grafting need not be confined to fruit trees. Ornamental trees and shrubs which are nearly related to each other may be grafted. Several kinds of roses may be grown on the same bush, and differently colored lilacs may be mixed on the same stock. Grafting is an easy art to acquire. Simply making the cions live is but a part of the operation on fruit trees, however. One must plan for the future top of the tree. He must graft such limbs as should make permanent factors in the top he is building; and while he should avoid grafting too many limbs, he should likewise avoid grafting too few. In either extreme too much cutting for the good of the tree will have to be done. If too few limbs are grafted, it will be necessary to cut too many branches off entirely during the process of grafting. If too many limbs are grafted, it will be necessary to cut many of them out in a few years to prevent crowding. It must be remembered that a grafted branch will occupy more room than a natural branch; for the cions branch and bush out from the point of their insertion. How many limbs and which ones to graft must be learned by experience and judgment.

The kind of grafting most likely to be practised on the farm is that known as cleft-grafting. The process is a simple one. Saw off the limb to be grafted where it is an inch or less in diameter; trim the edges of the "stub" smooth, and split it with a large knife, or a cleaver made for the purpose. The cleft should not be more than four inches deep at the most. A wedge is now inserted in the centre of the cleft, and a cion is set on each side of the stub. The cions are made of twigs of last year's growth. They should be cut before the trees show any sign of starting in the Spring. When the cion is prepared ready for setting it should contain about three buds. The lower end is cut wedge shaped by slicing off each side of the cion. On one side of this wedge-shaped portion, and midway between its top and bottom, should be left one of the buds.

When the cion is set this bud will be deep down in the side of the cleft in the stub, and will be covered with wax; but, being nearer the source

of nourishment it will be the most apt of any buds to grow, and it will readily push through the wax. The cion is set into the cleft by exercising great care that the inner surface of the bark on the cion exactly matches the inner surface of the bark on the stub. A line between the bark and the wood may be observed. This line on the cion, in other words, should match this line on the stub. Wax the whole over carefully and thoroughly. Do not leave any crack exposed. Wax which is pretty hard, and which must be worked and applied with the hands, is commonly best. We have given several good recipes for grafting wax. We would recommend that grafting be not confined to the orchard. Experiment. Try pears and apples on wild crabs and thorns. One must not look for success on trees much different from the cions, but there is room for experimenting, and more light is needed.—*American Cultivator*.

## THE ROBIN AND THE CHICKEN.

A plump little robin flew down from a tree,  
To hunt for a worm, which he happened to see;  
A frisky young chicken came scampering by,  
And gazed at the robin with wondering eye.

Said the chick, "What a queer-looking chicken is that!  
Its wings are so long and its body so fat!"  
While the robin remarked, loud enough to be heard:  
"Dear me! an exceedingly strange-looking bird!"



PLAYFUL SQUIRRELS.

"Can you sing?" robin asked, and the chicken said,  
"No."  
But asked in its turn if the robin could crow.  
So the bird fought a tree, and the chicken a wall.  
And each thought the other knew nothing at all.

## REINDEER HUNTING.

One sport that amuses the Eskimo boys very much would probably be called in our language "reindeer hunting." Having found a lough and gentle slope on a side-hill, they place along the bottom of the hill a number of reindeer antlers, or, as we sometimes incorrectly call them, deer-horns (for you boys must not forget that the antlers of a deer are not horn at all, but bone). These antlers of the reindeer are stuck upright in the snow, singly or in groups, in such a manner that a sled, when well guided, can be run between them without knocking any of them down, the number of open spaces between the groups being equal to, at least, the number of sleds. The quantity of reindeer antlers they can thus arrange will of course, depend upon their fathers' success the autumn before in reindeer hunting; but there are nearly always enough antlers to give two or three and sometimes five or six, to each fearless young coaster.

The boys with their sleds, numbering from four to six in a fair-sized village, gather on the top of the hill, each boy having with him two or three

spears, or a bow with as many arrows. They start together, each boy's object being to knock down as many antlers as possible and not be the first to reach the bottom of the hill. You can see that, in such a case, the slower they go when they are passing the antlers the better. They must knock over the antlers with their spears or arrows only, as those thrown down by the sledge or with the bow or spear in the hand do not count. They begin to shoot their arrows and throw their spears as soon as they can get within effective shooting distance; and, even after they have passed between the rows of antlers, the more active boys will turn around on their flying sleds and hurl back a spear or arrow with sufficient force to bring down an antler.

When all have reached the bottom of the hill, they return to the rows of antlers, where each boy picks out those he has rightfully captured, and places them in a pile by themselves. Then those accidentally knocked over by the sledges are again put up and the boys return for another dash down the hill, until all the antlers have been "speared." Sometimes there is but one antler left, and when there are five or six contesting sleds the race becomes very exciting, for then speed counts in reaching the antler first. When all are down, the boys count their winnings, and the victor is, of course, the one who has obtained the greatest number of antlers.—*From "The Children of the Cold."*

## THE ZEBRA OF SOUTH AFRICA.

The best-known and the handsomest of these horse-like animals is the common zebra (*equus zebra*, Linn.), rather smaller than the wild horse, which name it bears among the Dutch colonists at the Cape of Good Hope; it is a mountain species, inhabiting South Africa, and the bands exist on all parts of the body and limbs, even to the hoofs. The zebras are very wild, living together in herds, going with great rapidity from place to place, as impelled by hunger or fear; they seek the most secluded spots, grazing on the steep hill-sides, posting a sentinel at whose warning of danger they scamper off with pricked ears and whisking tails to inaccessible retreats in the mountains; the senses of sight, smell, and hearing are remarkably acute, and their speed is very great; when attacked by man or beast, they form a compact body, with their heads in the centre and their heels towards the enemy, bravely defending themselves against the large carnivora by their showers of kicks. They have been so domesticated as to be used as beasts of burden, but, having been subdued by cruel usage, show little of the spirit of the wild state. The flesh is eaten by the natives and hunters in South Africa, and is said to be exceedingly good, though coarse, as in all the horse family.

## I CAN LET IT ALONE.

I can do something that you can," said a boy to his companion. "I can chew tobacco."

"And I can do something you can't," was the quick reply. "I can let tobacco alone."

Now this is the kind of a boy we love to see. The boy who has had the backbone to refuse when asked to do a foolish or wicked thing is the one of whom we are proud. It is an easy matter to sail with the wind or float with the tide, and it is easy enough to form bad habits; so that none can boast over the power to do that. It is the one who can let them alone that is worthy of praise. And the best time to let tobacco alone is before the appetite has been formed. There is nothing inviting about it then.

Do not use it, boys. It is filthy, poisonous, disgusting stuff at its best.

Be men enough to let it alone. Hold up your head and say that you are its master, and never intend to become its slave.

 **20,690,506 BOTTLES** 

OF  
**WARNER'S 'SAFE' CURE**

Or, Warner's SAFE Kidney and Liver Cure (its former title),

**SOLD TO FEBRUARY 1st, 1885.**

No other Compound on earth can show a similar record, and no Physician a better one. The highest Medical Authorities pronounce it the only known Specific for Kidney, Liver and Urinary diseases, that it has no equal as a **BLOOD PURIFIER** and that it is the best safe-guard against contagious diseases, both acute and chronic, keeping the **KIDNEYS and LIVER**—the great organs of the body—in healthy condition, disease then being impossible. **For the many distressing ailments of delicate ladies, it has no equal. We can furnish over One Hundred Thousand voluntary Testimonials similar to the following.** Read them for the good of yourself, your family and your friends. Note how this vast number of **BOTTLES** was distributed as evidenced by our sales-books.

**BOSTON, - - 936,842.**

HON. N. A. PLYMPTON (Hon. B. F. Butler's campaign manager), of Worcester, Mass., in May, 1880, was prostrated by kidney colic, caused by the passage of gravel from the kidneys to the bladder. He then began using Warner's SAFE Cure, and in a short time passed a large stone and a number of smaller ones. Dec. 10th, 1884, Mr. Plympton wrote, "I have had no recurrence of my old trouble since Warner's SAFE Cure cured me."

**PROVIDENCE, - - 128,947**

G. W. FULTON, Esq., Fulton, Texas, suffered for ten years from serious bladder disorders, and lost from 25 to 30 pounds. In 1881 he used 14 bottles of Warner's SAFE Cure, and recovered his natural weight and said, "I consider myself well for a man of 75." December 20th, 1884, he wrote, "I have had no symptoms of kidney disorder since 1881, and if I did I should rely upon SAFE Cure."

**PORTLAND, ME. - 330,829.**

**BAL. OF N. ENG., - 331,315.**

EX-GOV. R. T. JACOB, Westport, Ky. In 1882, during a political canvass, health gave way and was prostrated with severe kidney trouble. Lost 40 pounds of flesh. Used Warner's SAFE Cure in 1882, and June 23, 1884, writes: "I have never enjoyed better health,—all owing to Warner's SAFE Cure."

**NEW YORK STATE, - 3,053,080.**

B. F. LARRABEE, Esq., 49 Chester Square, Boston, Mass., in 1879, was given up by several prominent Boston physicians as incurable from Bright's Disease. He took over 200 bottles of Warner's SAFE Cure, in 1880-2, and Oct. 6, 1884, wrote that the "cure was as permanent as surprising."

**PENNSYLVANIA, - 1,365,914.**

MRS. J. B. DESMOULIN, 2411 Morgan Street, St. Louis, Mo., 1882, wrote, "I have been in delicate health for many years; but Warner's SAFE Cure made me the picture of health." June 23rd, 1884, she wrote, "My health has been good for the last two years."

**CH'GAGO, - - 2,81,520.**

CHAS. E. STEPHENS, of Louisville, Ky., Nov. 15, 1882, wrote, "When my daughter was ten years of age she was seriously attacked by extreme kidney disorder. She recovered temporarily, but a year ago was again prostrated. She was swollen to twice her natural size, had frequent headaches, nausea, and other disquieting symptoms of the disorder. All her Louisville physicians agreed that she could not recover. Her case and treatment were telegraphed to a New York specialist, who said recovery was impossible. Last August we began to treat her ourselves, and now, wholly through the influence of Warner's SAFE Cure, she is apparently as well as ever." November, 1884, he says, "My daughter is apparently in perfect health."

**DETROIT, - - 635,210.**

S. F. NESS, Rochester, N.Y., the well-known tobacco manufacturer, three years ago took twenty-five bottles of Warner's SAFE Cure for liver disorder, and August 20th, 1884, he reported, "I consider myself fully cured, and the credit is wholly due to Warner's SAFE Cure."

**MILWAUKEE, - - 344,171.**

THE REV. ANDREW J. GRAHAM, (P.E.), Grand Island, Neb., in 1881 was pronounced fatally sick with Bright's Disease. His condition, he says, was desperate, and he could get no relief from physicians. He then followed Warner's SAFE Cure treatment, and July 7, 1884, he wrote, "All local trouble has disappeared. Have taken no medicine for nearly a year."

**MINNESOTA, - - 486,013.**

G. W. HAMILTON, Milton, Santa Rosa Co., Florida, December 15th, 1884, wrote that "four years ago my wife was suffering with liver complaint which reduced her to a skeleton. The doctors finally pronounced her case Bright's Disease of the kidneys and incurable. She then took 13 bottles of Warner's SAFE Cure, and has been in perfect health ever since. She now weighs 180 pounds where formerly she was a skeleton. Warner's SAFE Cure will make a permanent cure always if taken by directions."

**BAL. N. W. STATES, 1,400,362.**

IF IT IS

**HARD TIMES WITH YOU**

Resort to the Remedy that Nine-tenths (9-10) of Sufferers Require, thereby Saving Continues Debility and Expensive Medical Attendance.

**SATISFACTION GUARANTEED.**

**CLEVELAND, - - 511,974.**

B. J. WORRELL, of Ellaville, Fla., in 1879, was prostrated with Bright's Disease of the Kidneys, and under the best treatment grew worse. "On the advice of Governor Drew's sister, I began Warner's SAFE Cure, sixty bottles of which restored me to full measure of health. I have now been cured about four years, and my case is regarded as miraculous." Governor Drew, of Jacksonville, Florida, April 20th, 1884, says, "Mr. Worrell's case and cure give me great confidence in Warner's SAFE Cure, and I unhesitatingly endorse it."

**CINCINNATI, - - 655,250.**

MRS. S. A. CLARK, East Granby, Conn., in 1881 was utterly used up with constitutional and female complaints of the worst kind. Been sick ten years and tried everything. In November, 1884, she wrote, "Warner's SAFE Cure cured me four years ago and has kept me well."

**BAL. OHIO, (STATE), - 474,869.**

**SOUTHERN STATES, - 2,725,513.**

JOSEPH JACQUES, Esq., St. Albans, Vt., in January, 1877, was taken desperately sick with Bright's Disease of the kidneys. He spat blood, was tremendously bloated, and seemed to be beyond the power of the best physicians. He then took 60 bottles of Warner's SAFE Cure, which restored him to health. January 1st, 1885, eight years afterwards, he wrote: "I never enjoyed better health in my life than I do now, and I owe it all to Warner's SAFE Cure. I consider myself cured of Bright's Disease."

**CANADA, - - 1,175,868.**

ROBERT GRAHAM, 77 Penn Street, Brooklyn, N.Y., suffered for six years from inflammation of the bladder and stricture. Six physicians specialists, gave him up to die. In 1883 he began Warner's SAFE Cure, and its continued use, he says, effected a complete cure. Under date June 25, 1884, he says, "My health continues good; have used no medicine since April 30, 1883."

**ST LOUIS, - - 1,222,895.**

REV. JAMES ERWIN, Methodist minister, West Eaton, N.Y., was long and seriously ill with inflammation of the prostate gland, (a very obstinate disorder). In 1882 he began the use of Warner's SAFE Cure, and June 25th, 1884, wrote, "The relief obtained two years ago proved permanent; physicians express great surprise."

**KANSAS CITY, - - 538,395.**

JAMES M. DAVIS, 330 South Pearl Street, Albany, N.Y., superintendent of Jigger Iron Co., in 1881 suffered from very serious kidney trouble; he weighed but 160 pounds; he used 18 bottles of Warner's SAFE Cure, and December 8th, 1884, he wrote, "That was fully three years ago, I have had no trouble since, and I feel first-class and weigh 198 pounds. I would not go back to that time of four years ago for all the dollars in the United States."

**BAL. S W. STATES, - 635,092.**

N. B. SMILEY, Esq., of Bradford, Pa., in 1882, was very seriously sick of extreme kidney disorder and rheumatism, which gradually grew worse. Physicians being unable to assist him, his last resort was Warner's Safe Cure, and June 25th, 1884, he wrote, "My health is better than for two years past, and in some respects is better than it has been for five years. When I catch cold and have any slight kidney trouble, I resume the medicine again and the relief I believe is permanent."

**SAN FRANCISCO, - 932,210.**

S. A. JOHNSON, Lockington, Ohio Sep. 20, 1881, stated that for thirty years he had suffered tortures with dyspepsia, but he was entirely cured by the use of Warner's SAFE Cure. Dec. 8th, 1884, he says: "I took 25 bottles of Warner's SAFE Cure, and it has never failed to stop any symptoms of my old complaint if they appeared; my health is good."

**BAL. OF PACIFIC COAST, 624,273.**

**ALL THE TESTIMONIALS ABOVE GIVEN ARE FROM PERSONS WHO WERE PERMANENTLY CURED SEVERAL YEARS AGO AND REMAIN SO.**



MISCELLANEOUS.

The striking resemblance between the biblical lily and the girl of the period is in the matter of toiling and spinning

WOMEN in Idaho can vote now Is it dangerous to observe that the candidates in that country will be elected by handsome majorities?

The following is a true copy of a letter received by a village schoolmaster. "Sur, as you are a man of noleige i intend to inter my son in your skull"

AN Irishman put up the following notice "Whoever is caught trespassing upon these grounds will be given forty lashes on the bare back Half the penalty will be paid to the informer"

DRIVE IT AWAY.—Drive away all poisonous humor from the blood before it develops in scrofula or some chronic form of disease Burdock Blood Bitters will do it

PAT : "And who is it lives there, Mike, in the log stone house?" Mike : "Why, that old gentleman I was telling ye of that died so sudden last winter of a fever.

At a college examination a professor asked. "Does my question embarrass you?" "Not at all, sir," replied the student. "Not at all. It is quite clear. It is the answer that bothers me."

A THROAT CURB.—A cure for Croup There is no better remedy for Croup than Haggard's Yellow Oil taken internally and applied according to special directions. This is the great household panacea for rheumatism, stiff joints, pain, inflammation, etc

"Why, Sam?" how do you expect to get that mule along with a spur only on one side?" "Well, boss, if I gets dat side to go, aim de adder one bound to keep up."

THE MINISTER (reproachfully) : "Ah, James, I'm sorry to see this." I thought you were a steadfast tectotaler!" James (who is too full to walk) : "Sho I am, sir; but I'm no a bigoted one!"

"WELL, to tell the truth, papa, I did not think much of the close of the sermon," said a fashionable young lady. "Probably you were thinking more of the clothes of the congregation," replied her father.

A MINISTER, in a country church in Scotland, stopped in the course of his sermon to ask a member, who was deaf, "Are you hearing, John?" "Oh, ay, was the response, "I am hearing, but to verra little purpose."

PICTURES OF YOURSELF.—To introduce our hand-some new style pictures throughout the U. S. at once, we will send Four Dozen finely finished photographs of yourself, post-paid, upon receipt of \$1.00 and sample plates to copy from (cabinet size preferred), provided you will promise in your letter to show pictures, and act as agent in case they are satisfactory. Are care to please everyone. Refer to Postmaster, Am. Express Agent or Nunda Bank. Remit by postal note or registered letter (no stamps taken), and mention this paper. Address, NUNDA PUBLISHING CO., Nunda, N. Y.

WATERLOO NEWS.—Water Linton, of Waterloo, writes that Haggard's Yellow Oil has done great good in his family, his wife being cured of callous lumps that other medicines failed to remove; he also states that a neighbour was promptly relieved of rheumatism by the same remedy.

A TEACHER, wishing to test an original method of training the young idea, gave the word "hith-ri-to" to one of the scholars to spell and pronounce without any assistance. This is the way it was wrought out on the one-syllable plan. "H-i-h-ri, h-e-r-her, t-o-ter, hith-her-toe."

RANILY CAUGHT.—It is very easy to catch cold, but not so easy to cure it unless you use Haggard's Pectoral Balsam the best remedy for all throats, bronchitis, and lung troubles, coughs, colds and consumptive tendencies.

"SEE here, my friend, that dog of yours killed three sheep of mine last night, and I want to know what you propose to do about it?" "Are you sure it was my dog?" "Yes." "Well I hardly know what to do. I guess I had better sell him. You don't want to buy a good dog, do you?"

CONSUMPTION CURED

An old physician, retired from practice, having had placed in his hands by an East India missionary the formula of a simple vegetable remedy for the speedy and permanent cure of Consumption, Bronchitis, Catarrh, Asthma and all Lung Affections, also a positive and radical cure for Nervous Debility and all Nervous Complaints, after having tested its wonderful curative powers in thousands of cases, has felt it his duty to make it known to his suffering fellows. Actuated by this motive and a desire to relieve human suffering, I will send free of charge, 2 all who desire it, this recipe, in German, French or English, with full directions for preparing and using. Sent by mail by addressing with stamp naming this paper, W. A. NOYES, 102 Pough-

Downright Cruelty.

To permit yourself and family to "Suffer!" With sickness when it can be prevented and cured so easily with Hop Bitters!!!

Having experienced a great deal of "Trouble!" from indigestion, so much so that I came near losing my Life! My trouble always came after eating any food

—However light and digestible.

For two or three hours at a time I had to go through the most Excruciating pains, "And the only way I ever got" "Relief!"

Was by throwing up all my stomach contained. No one can conceive the pains that I had to go through, until

"At last?" I was taken "So that for three weeks I lay in bed and

Could eat nothing! My sufferings were so that I called two doctors to give me something that would stop the pain; their

Efforts were no good to me. At last I heard a good deal

"About your Hop Bitters!" And determined to try them."

Got a bottle—in four hours I took the contents of One!

Next day I was out of bed, and have not seen a

"Sick!" Hour, from the same cause since. I have recommended it to hundreds of others. You have no such

"Advocate as I am."—Geo. Kendall, Allston, Boston, Mass

Columbus Advocate, Texas, April 21, '83. Dear Editor.—I have tried your Hop Bitters, and find they are good for any complaint. The best medicine I ever used in my family. H. TALENA.

None genuine without a bunch of green Hops on the white label. Shun all the vile poisonous stuff with "Hop" or "Hops" in their name.

FEVER, colic, unnatural appetite, freitfulness, weakness, and convulsions, are some of the effects of Worms in children; destroy the worms with Dr. Low's Worm Syrup.

CROUP.

JOHN TORRANCE, Listowel, Ont., writes, "WINTER'S BALSAM OF WILD CHERRY is, without exception, the best medicine made for Coughs, Colds and Croup. My little boy is subject to croup; I give him a dose whenever he has an attack, and he gets instant relief. I have had the Balsam in the house for years, and would not be without it under any consideration."

JOHN LIVINGSTON, Jr., Druggist, in same place, says, "I take pleasure in certifying that I have sold WINTER'S BALSAM OF WILD CHERRY for many years, and know it to be one of the oldest as well as one of the most reliable preparations in the market for the cure of Coughs, Colds and Throat and Lung Complaints. Those of my customers who have used the Balsam speak highly of it and I have no hesitation in heartily recommending it."

J. A. HACKING Druggist, Listowel Ont., says he has sold WINTER'S BALSAM fifteen years that he knows of no article that gives greater satisfaction to those who use it and he does not hesitate to recommend it.

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110 acres adjoining Village of Streetville - splendid condition brick dwelling and large outbuildings - price \$80 per acre.
120 acres adjoining Village of Cannoy Perth - 120 acres cleared, good state of cultivation. This is a choice farm - price \$10,500.

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No crude petroleum sulphur, saltpetre or explosives, but is a compound which if put in the stump and set fire to will burn it.

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Send \$1.00 for enough Penetratix to burn 12 large or 18 small stumps. Satisfaction guaranteed or money refunded.

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Washing made light and easy. The clothes have that pure whiteness which no other mode of washing can produce. No rubbing required—no friction to injure the fabric. A ten-year old girl can do the washing as well as an older person. To place it in every household the price has been reduced to \$3.00, and if not found satisfactory, money refunded within one month from date of purchase.

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**APPLE ROLL.**—Make a crust as for yeast powder biscuit, roll out the size of a large plate nearly half an inch thick, cover with apples, sliced, roll up carefully, lay on a plate and steam one hour, serve with hot or cold sauce. Berries may be used instead of apples.

**A BREAKFAST DISH.**—Chop fine eight or ten cold potatoes, heat a frying pan hot, put in a tablespoonful of butter; add the potatoes, salt a little, stirring frequently, when well heated through, turn in flour, eggs well beaten, and stir quickly, serve on a hot platter.

**FOR BOYS AND GIRLS.**—We shall give away several thousand dollars in presents before Aug. 1st, including Solid Gold Watches, Jewellery, Guns, Revolvers, Tomahawks, Banjos, Guitars, Music Boxes, Tool Chests, Telescopes, and everything an intoligent boy or girl could desire.

If you want the *model magazine* for the youth of the 19th century, send 25 cents for three months' trial subscription and list of presents. A handsome pocket knife or something of greater value guaranteed to all sending. Send for your friends and receive the presents. Address, NAT. YOUTH'S MONTHLY, Buffalo, N.Y.

**COFFEE CAKE WITHOUT EGGS.**—One cup of old, strong coffee, one cup each of molasses and sugar, one-half cup butter, four cups of flour, one cup of raisins and one teaspoon full of soda; flavour with cloves, cinnamon, allspice and nutmeg.

**TRIPLE A LA BORDELAISE.**—Take two pounds of tripe and lay it in salt and water over night, cut in strips about the size of your finger; put into a stew-pan one tablespoonful of butter or clarified drippings, with half a tablespoonful of chopped parsley and very hot, put in the tripe and cook until brown, and salt and pepper to taste. Tripe is often found digestible and palatable by delicate stomachs when nothing else can be eaten.

**THREE BOOKS GIVEN AWAY.**—We will send the following three books free. **LADIES' PRIVATE COMPANION**, a complete medical adviser for women. Illustrated and Bound in Cloth (Former price \$1). **FUN AND CANDY**, a 48 page book telling how to make over 100 kinds of candies and other sweet things, handsomely bound (Former price 50 cts.), and **LADIES' GUIDE TO FANCY WORK**, a Practical Instructor in all kinds of Art Matters, containing 64 large 4-column pages, over 200 handsome Illustrative Engravings, and well-bound, to any lady who sends 50 cents for six months' trial subscription to THE HOUSEWIFE, a large 16-page journal devoted to Fashions, Fancy Work, Art Recreations, How to Cook and Household Matters. If you will send \$2.00 for four friends, you will each receive all the above, and we will send you an elegant HAND MIRROR. For club of 50 we give a **LADIES' GOLD WATCH**. Address THE HOUSEWIFE PUB CO, Nunda, N.Y.

**RICE CHICKEN PIE.**—Cover the bottom of a pudding dish with slices of cooked ham, cut up a boiled chicken, and neatly fill the dish; add chopped onions, if you like, or a little curry powder, which is better. Then add boiled rice to fill all interstices, and to cover the top thick. Bake it for one-half or three-quarters of an hour.

**LEMON PIE.**—Four egg yolks, two cupfuls of sugar, one cupful of cold water; one tablespoonful of flour beaten in a little water. Grate the rind and press the juice of one lemon. This will make three pies. Proceed for the above. Take the whites of the above four eggs, beaten to a stiff froth, and one cupful of powdered sugar.

**FRUIT TO FARMERS.**—To secure 100,000 new subscribers during next sixty days, we will actually send the best farmers' magazine in the U.S. free for an entire year to everyone sending us at once the names of ten farmers and 12 2 cent stamps for postage, etc. Regular Price \$1.00. Address, NATIONAL AGRICULTURIST, Nunda, N.Y.

**A PRUNE PIE.**—Delicious filling is made by stewing some prunes until they are very soft; remove the stones, sweeten to your taste, and add, for one pie, the well-beaten whites of two eggs; beat with the prunes until thoroughly mixed. Bake with two crusts, or if you can get it, use whipped cream in place of the upper crust.

**FRUITATTELLI.** Chop raw, fresh pork very fine, add a little salt, plenty of pepper, and two small onions chopped fine, half as much bread as there is meat, soaked until soft, two eggs, mix well together, make into oblong patties, and fry like oysters. These are nice for breakfast or for supper, and should be served with sliced lemon, or some kind of

**FLAVOUR FOR SOUP.**—An agreeable flavour is sometimes imparted to soup by sticking some cloves into the meat used for making stocks, a few slices of onions fried very brown in butter are nice; also flour browned by simply putting it into a saucapan over the fire and stirring it constantly until it is dark brown.

**A SIMPLE OMELET.**—Take the crumb of a slice of bread, soak it in hot milk (cold will do, but hot is better), beat up whites of four eggs to a high froth; mix the bread with all the milk it will absorb, no more, into a paste, add the yolks of the eggs with a little salt, set the pan on the fire with an ounce of butter. Let it get very hot, then mix the whites of the eggs with the yolks and bread, lightly, pour in the pan, and move about for a minute; if the oven is hot, when the omelet is brown underneath, set the pan in the oven for five minutes, or until the top is set; then double half over and serve. The advantage of this omelet is that it keeps plump and tender till cold, so that five minutes of waiting does not turn it into leather, the great objection to omelets, generally.

There is a wide-spread and serious prevalence of disorders of the kidneys, and of various diseases caused by the imperfect operation of the kidneys and liver. According to Roberts, Thompson and other recognized authorities, kidney disorders are very common, but the obscurity of their positive symptoms is so marked that many people, ill and out of sorts generally, are really victims of kidney complaint, and they and their physician do not realize it. Theumatic pains, irregular appetite, frequent headaches, chills and fever, "blues," hot and dry skin, sour stomach, dyspepsia, irregular action of the bowels, nervous irritability, muscular soreness, cramps, languor, impairment of memory, loss of virility are among the preliminary evidences of coming kidney and liver derangements. As the disease develops then follow lame back, swelling ankles, pale face, scalding sensations, the water sometimes being very light and abundant, at others scarce, dark-coloured and frothy, and abandoning in sediment, and, under the microscope, in albumen and tube casts. In the deranged kidneys are not promptly attended to, is a consumption or destruction of the kidneys—the near approach of which alarming disorder should awaken the liveliest concern, for it soon hurries one into the grave unless promptly checked.

Disordered kidneys have the unfortunate effect also of weakening the vigour of the liver, as indicated if one has, besides the above symptoms, yellow-spotted skin, fat covered eye-balls, frontal headache after eating, burning and itching skin, cold extremities, hot head, bad circulation of blood, sick headache, nausea, light coloured eruptions, constipation, piles, variable appetite and feelings, dizziness, blurred eye sight, liver-cough, ague, chills, fevers, wakefulness at night, drowsiness by day, etc.

These are some of the commoner symptoms as laid down by leading medical authorities, and with them in view one ought not to have much trouble in ascertaining if he is suffering from disorders of these great organs.

These observations have been called forth by a double-column article which appears in another place in this paper. Skeptical of some of the statements made therein, and at other times by the same persons, we have been led to make a little study of the matter ourselves, with the above result. These diseases prevail amongst young and old everywhere, resulting in terrible and untimely deaths; they take off more people than epidemics; physicians report death as occurring from such diseases as apoplexy, paralysis, convulsions, heart disease, pneumonia, fevers, etc., when in reality these disorders are often secondary to Bright's Disease, and would seldom occur were the kidneys in healthy working condition. Hence, from personal knowledge, or from the trustworthy experience of other competent judges, we believe there is no preparation equal to the remedy that is so prominently mentioned elsewhere in this issue, for preventing and curing the dangerous disorders of which we have written. It has had an extraordinary sale, is everywhere commended, the record of its work seems indisputable, its manufacturers are reputed to be men of the highest standing. We hold, therefore, that not to use it if needed would be a crime against one's supremest interests, especially at this time when, threatened by a fearful epidemic, it is of the highest importance, according to Dr. Koch, the celebrated German cholera specialist, that we keep the kidneys, liver and digestive organs in healthy action, if the scourge would be

**The Hotel Colfax.**  
This summer resort has the "Old Magnesian Chalybeate" and "Colfax" mineral springs, at Colfax, Iowa, 21 miles east of Des Moines and 3 1/2 west of Chicago, on the Rock Island & Pacific R'y, will be opened on May 6, for this season of 1885. This splendid hotel can accommodate 300 guests. All its appointments are first-class. Its tables are supplied with all the substantial and delicacies, and its parlours, reading and sleeping-rooms with every convenience. Croquet, billiards, bowling alleys and other facilities for recreation. Thayer's orchestra engaged for the season.  
The grounds contain the "Old M. O." and Colfax Springs, which are equalled for their remedial virtues. Thousands certify to their efficacy; they are a powerful alterative and tonic, and an infallible cure for rheumatism, dyspepsia, indigestion and other ailments.  
The Hotel Colfax furnishes the water fresh from the original fountains for drinking and bathing, hot or cold. Its charges are moderate, \$10 per week and upward. Parties desiring quarters for the summer should secure them at once.

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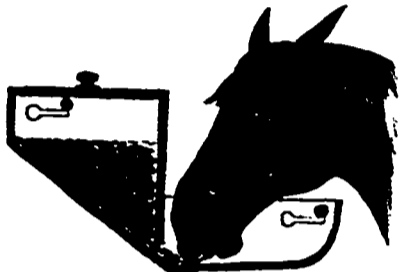
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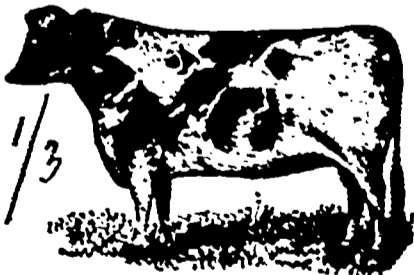


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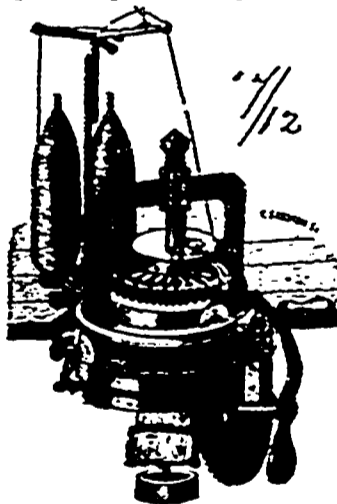
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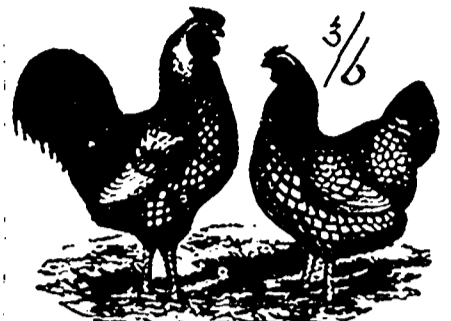
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## WHAT IS CATARRH?

[From the Toronto (Canada) "Mail"]

Catarrh is a mucous discharge caused by the presence and development of the vegetable parasite amoeba in the internal lining membrane of the nose. This parasite is only developed under favorable circumstances, and these are: Morbid state of the blood, as the blighted corpuscle of tubercle, the germ poison of syphilis, mercury, toxemia, from the retention of the effete matter of the skin, suppressed perspiration, badly ventilated sleeping apartments, and other poisons that are germinated in the blood. These poisons keep the internal lining membrane of the nose in a constant state of irritation, ever ready for the deposit of the seeds of these germs, which spread up the nostrils and down the fauces, or back of the throat, causing ulceration of the throat; up the Eustachian tubes, causing deafness; burrowing in the vocal cords, causing hoarseness; usurping the proper structure of the bronchial tubes, ending in pulmonary consumption and death.

Many attempts have been made to discover a cure for this distressing disease by the use of inhalants and other ingenious devices, but none of these treatments can do a particle of good until the parasites are either destroyed or removed from the mucous tissue.

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What the Rev. E. D. Stevenson, B. A., a Clergyman of the London Conference of the Methodist Church of Canada, has to say in regard to A. H. Dixon & Son's New Treatment for Catarrh.

Messrs. A. H. DIXON & SON: OAKLAND, ONTARIO, CANADA, March 17, 1883.  
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I consider that mine was a very bad case. It was aggravated and chronic, involving the throat as well as the nasal passages, and I thought I would require the three treatments, but feel fully cured by the two sent me, and I am thankful that I was ever induced to send to you.  
You are at liberty to use this letter, stating that I have been cured at two treatments, and I shall gladly recommend your remedy to some of my friends who are sufferers.  
Yours, with many thanks,  
REV. E. D. STEVENSON.

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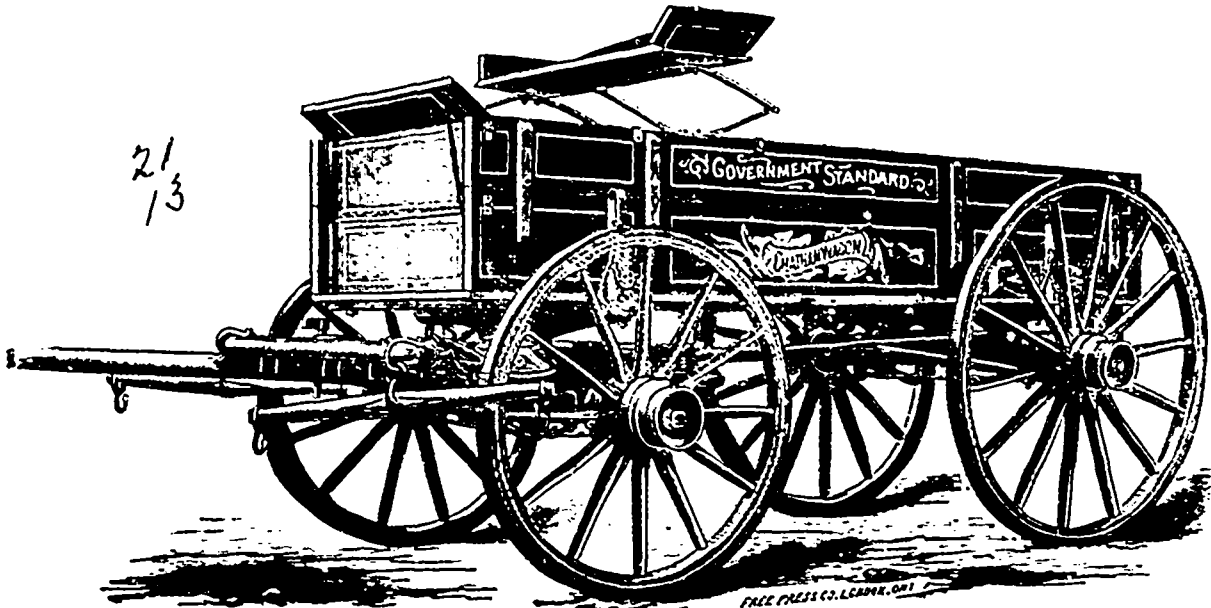
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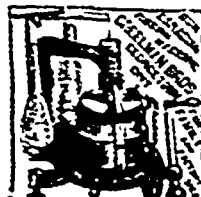
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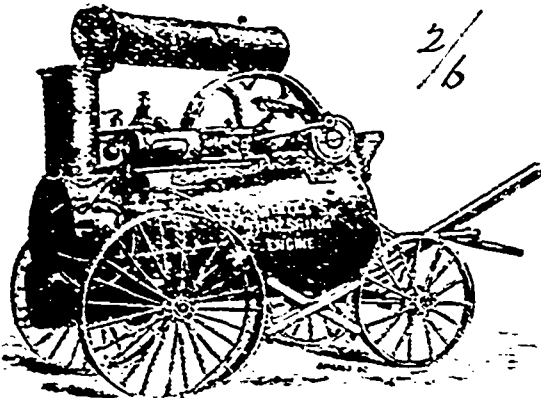


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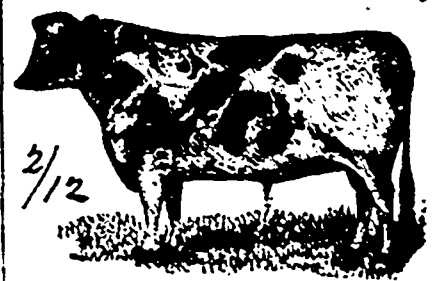
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