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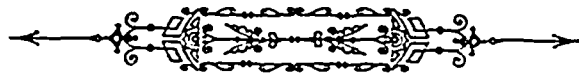
THE RURAL CANADIAN.

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

Vol. VIII, No. 3.
Vol. IV., No. 3—New Series.

Toronto, March, 1885.

\$1.00 per annum, in advance.



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DISEASE BANISHED

Health Gained,
Long Life Secured,
BY USING

KIDNEY-WORT

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It Cleanses the Liver,
It Strengthens the Kidneys,
It Regulates the Bowels.

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OF BAYLOR UNIVERSITY.

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Ayer's Hair Vigor

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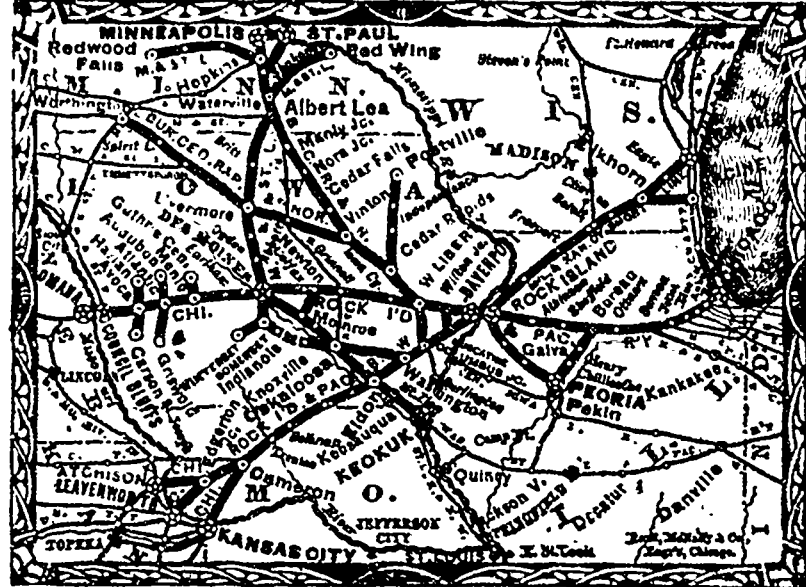
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As it is familiarly called, offers to travelers all the advantages and comforts incident to a smooth track, safe bridges, Union Depots at all connecting points. Fast Express Trains, composed of COMMODIOUS, WELL VENTILATED, WELL HEATED, FINELY UPHOLSTERED and ELEGANT DAY COACHES; a line of the MOST MAGNIFICENT HORTON RECLINING CHAIR CARS ever built; PULLMAN'S latest designed and handsomest PALACE SLEEPING CARS, and DINING CARS that are acknowledged by press and people to be the FINEST RUN UPON ANY ROAD IN THE COUNTRY, and in which superior meals are served to travelers at the low rate of SEVENTY-FIVE CENTS EACH.

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Inflammatory Rheumatism Cured.
"AYER'S SARSAPARILLA has cured me of the Inflammatory Rheumatism, with which I have suffered for many years."
W. H. MOORE.
Durham, Ia., March 2, 1882.

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Dr. J. C. Ayer & Co., Lowell, Mass.
Sold by all Druggists; \$1, six bottles for \$5.



CURE

Sick Headache and relieve all the troubles incident to a bilious state of the system, such as Indigestion, Nausea, Drowsiness, Distress after eating, Pain in the Side, &c. While the most remarkable success has been shown in curing

SICK

Headache, yet Carter's Little Liver Pills are equally valuable in Constipation, curing and preventing this annoying complaint, while they also correct all disorders of the stomach, stimulate the liver and regulate the bowels. Even if they only cured

HEAD

Ache they would be almost precious to those who suffer from this distressing complaint; but fortunately their goodness does not end here, and those who once try them will find these little pills valuable in so many ways that they will not be willing to do without them. But after all sick head

ACHE

Is the bane of so many lives that here is where we make our great boast. Our pills cure it while others do not. Carter's Little Liver Pills are very small and very easy to take. One or two pills make a dose. They are strictly vegetable and do not gripe or purge, but by their gentle action please all who suffer. In vials at 25 cents; five for \$1. Sold by druggists everywhere, or sent by mail.

CARTER MEDICINE CO.,
New York City.

Wherefore come on, O young husbandmen, Learn the culture proper to each kind.—Virgil.

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Canadian Farmers' Manual of Agriculture, all about Field, Farm Stock, Dairy Buildings, Machinery, &c. Numerous illustrations, 500 pp. Post free, \$1.00.
WILLIAMSON & CO., Toronto.

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NEAR MARKETS.

The State of Michigan has more than 4,800 miles of railroad and 1,500 miles of lake transportation, schools and churches in every county, rubble buildings all paid for, and no debt. Its soil and climate combine to produce large crops, and it is the best Fruit State in the North-west. Several million acres of unoccupied fertile lands are yet in the market at low prices. The State has issued a PAMPHLET containing a map, also descriptions of the soil, crops, and general resources, which may be had free of charge by writing to the COM'rs of Internal Commerce, Detroit, Mich.

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Rural Canadian and Farm Journal,

WITH WHICH IS INCORPORATED

THE CANADIAN FARMER AND GRANGE RECORD.

Vol. VIII., No. 3.
Vol. IV., No. 3—New Series.

Toronto, March, 1885.

\$1.00 per annum in advance.

RURAL NOTES.

WE will consider it a favour if our readers in various portions of the country will mail us a postal card with a few lines concerning wheat, fruit and other prospects.

THE *Poultry Journal* advises that frozen eggs be attended to promptly. Then they will be as good to eat as others. The plan suggested is to drop the frozen eggs directly into boiling water and leave it for about ten minutes. When opened it will be found to have a soft yolk, which would not have been the case if it had been thawed out in cold water.

GEORGE IV. wore a stock to hide the scrofulous sores of "King's Evil" about his neck, and so stocks became fashionable regardless of any taint in the blood. An Englishman invented blinders to hide a defect in the eye of a valuable horse, and, as a trade-mark of nobility, the blinder came into fashion. Blinders and stock should be reserved for their original objects. They are good enough to conceal disease or disfigurement, but for any other purpose they are a nuisance.

THE *London Advertiser* says: 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. These new attractions, combined with former practical features, will make THE RURAL CANADIAN one of the most welcome and valuable visitor in the homes of our agriculturists.

THE question of harrowing and rolling wheat in spring, being introduced at a recent meeting of the Rochester, N. Y., Farmers' Club, Daniel E. Rogers, of Scottville, related his experience. He said former results had been such that if he had a good piece of wheat, well seeded to timothy, he would sow clover seed early in the spring without harrowing; if a porous soil or one inclined to heave, he would use the roller. If not previously seeded to timothy, then he would mix all the seed together and sow early in the spring and harrow as soon as the ground was in condition to work with a fine tooth harrow. Mr. Rogers believes he has lost several crops of clover by not harrowing immediately after sowing.

A VISIT was made to the Agricultural College at Guelph a few days ago by a goodly number of members of the Local Legislature, and prominent in the party was the Lieutenant Governor. We were pleased to see that in the after dinner speeches of members there was exhibited a very friendly feeling towards the College by men of both political parties, and that, in spite of some adverse criticism of the institution which has been made in party newspapers, there was an emphatic recognition of its usefulness. There should be no more politics in the Agricultural College than in the Provincial University, but each party should vie with the other in promoting its efficiency and usefulness.

THERE is a good deal to be said in favour of a short bill introduced in the Legislative Assembly by Mr. Wood of Hastings, referring to the assessment of lands newly purchased from the Crown. Such purchases are made quietly, there is no public or official announcement of them; and an individual may be the owner of a lot for years without paying a cent of local taxes. Either the Commissioner of Crown Lands should publish a list of sales once a year in the Gazette, or the clerk of the municipality in which the lands are situated should be notified of every sale made each year. Speculators in lands have much fewer immunities now than formerly, but they should have none at all.

One of the topics discussed at the Ontario Fruit-Growers' Association was the relative value of apples and roots as food for live stock. According to the opinion of those who favoured apples there is greater nutriment in a bushel of them than in a bushel of sugar beets. But then it must be remembered that it takes eight or ten years to bring an orchard into bearing condition, while a crop of beets can be grown on the same plot of ground every successive year. If apples are so cheap and plentiful that it is a question between feeding them to cattle or hogs and leaving them to rot on the ground, we should say feed them by all means. But with the English market now open to us, in addition to a good home one, it must be a very poor quality of apples that does not pay better by shipping to market than feeding to hogs or cows at home.

THERE are complaints on the part of bee-men that in those parts of the country where Italian and Cyprian bees have been introduced, colonies of native bees cannot be kept with any profit. Bees seem to be possessed of a natural instinct to pillage each other, and the larger and stronger bee from Italy or Cyprus is far more than a match for the Canadian one. We have heard of several instances of farmers having fifteen or twenty colonies pillaged and destroyed by the imported Huns and Vandals of the genus *Apis*, and yet against such manifest wrong there is no redress. Why does not the law at least provide for compensation in a case where pillage is clearly established? In point of equity, what difference is it whether the well-stocked hives of Mr. Brown are robbed by Mr. Robinson himself, or by his colonies of imported Cyprians and Italians?

THE annual meeting of the Eastern Dairymen's Association this year was a very successful one. The attendance was much larger than at the meeting of the Western Association, and the discussions may truthfully be said to have been livelier and more practical. There is a number of enthusiastic dairymen in the eastern part of the Province, and some of the younger men especially give promise of great usefulness in promoting dairy interests. The influence of such men as Mr. Macpherson in the East and of Mr. Ballantyne in the West has been most valuable in its results, but we think it must be allowed that the former is more likely to have worthy successors than the latter. Our friends in the East are far more dependent on home talent than on that of imported professors to make their meetings successful and profitable, and therein their example is to be commended.

At a recent meeting of the New York State Dairymen's Association, Prof. Alcord of Houghton Farm, gave it as his opinion that the best dairy cows are obtained by crossing the Jersey and the Ayrshire—the former being the sire. In a Canadian dairy of twenty cows visited* by the Professor last summer, he found that ten had given 500 pounds of butter each in a year. We think there can be no doubt that the Jersey and Ayrshire cross is to be commended above all others, for it assures the two things most to be desired in a dairy cow—quantity and quality. Next to these, it would be safe to recommend a cross between a Jersey sire and our native cow. The latter has qualities as a dairy animal that have never been fully appreciated; it is hardy, it feeds well, and is a very good milker. With a strain of warm blood in the breed, liberal feeding and reasonable care, there should be little trouble in developing a first-class dairy cow on every Ontario farm.

IN Denmark, where great attention is given to dairying, the value of every cow in a herd is known by a thorough system of statistics and book-keeping. The exact result of each cow's yield may be ascertained by trial-milking on a certain day of each week in the year, and every dairy farm in Denmark is provided with a book of record. Each cow is allotted a separate column; its age, breed and pedigree are entered, and the yield is carefully noted. In this way it is frequently ascertained that cows of the same herd and breed, subjected to the same treatment and fed on the same diet, give the most curious results—some yielding as high as 600 gallons a year and others only 300. But, again, it not infrequently turns out that the cow giving only 300 gallons a year is as good a butter-yielder as the one giving 600 gallons. The experiments are not considered complete unless the milk of each cow is tested for its butter product, and with such tests it becomes an easy matter for a dairyman to cull out the poor cows from his herd. We want more book-keeping and records of results on our Canadian farms.

THE best eggs, an exchange remarks, are the result of a meat diet; and it adds that the high coloured and well-flavoured eggs of Kansas during the grasshopper visitation were a marvel to strangers. As to the fondness of fowls for grasshoppers, there can be no question in the mind of any one who has lived a summer in the country with his eyes open; but for all that we should prefer to see the hens that lay the eggs for our table take to some other diet. What man not on the limits of starvation would make a meal of grasshoppers? No, if we were feeding poultry for the home supply we should not allow them to forage for grasshoppers. We should give them plenty of clean and wholesome food, and such food as a human being might eat without curing him of jaundice by a mechanical operation such as is produced by the primitive cure of dosing the patient with the excrements of a goose. We are not surprised that many people cannot endure pork, considering the filthiness of the hog, but even if a hog were given decent food and a cleanly place to live in, we do not doubt that its flesh might be palatable and healthy.

A FEW MISTAKES.

BY F. MALCOLM, BLANDFORD.

Many farmers do not sufficiently value the fertility of their land. Fertility in a merchantable shape, such as superphosphate, or guano, has a marketable value, and it is not till those fertilizers have to be resorted to, that many are aware of the blunder they have made. That which is not valued is very likely to be wasted. The man commencing on a new and fertile farm is very likely to act as many do when the pocket is flush of money. The danger is even greater because the waste is not so perceptible. The man who is careful of his dollars, and at the same time careless of the productive forces of his farm, makes a mistake. The one is just as important as the other. Neither, when squandered, can be restored, except by drawing on something else. If a man loses his purse, he may replace it by drawing on his land. If he wastes the fertility of his farm, he may replace it by drawing on his purse, that is, if he owns one. In buying, or valuing farm land, it should never be lost sight of, that it is the fertility that is of value, and not simply quantity measured on the surface, and yet many make the mistake of valuing surface quantity more than depth. The depth of a farm is more important than the breadth of it. There is a good deal of land in this country that would be increased in value by putting one hundred acres on top of another, with something good between. This mistake leads to bad practice with the manure pile.

This being a thing of great value, it deserves care and attention, just as well as a valuable house. Serious loss results from the mistaken idea so many entertain, that

MANURE CAN TAKE CARE OF ITSELF.

Having personal experience with the difficulties the common farmer has to contend with, I do not recommend, as is frequently done by agricultural writers, the building of sheds in which to store the manure. The cost is too great. Not one in a thousand will give heed to such advice. But what I do recommend is improvement on the general practice. Instead of leaving the manure just where it can be easiest thrown or dumped, it should be piled as neatly as in building a stack, and much in the same shape, till it is by the first of May six feet deep, and flat on top. Around this manure pile, there should be a few places, slightly hollowed, to catch the leakage. With a long handled dipper this leakage can be daily, or every few days as it may collect, be baled back on top of the pile. The surplus urine which may not be absorbed by the bedding should also be added; and if any part of the pile should come very hot, and in danger of fire-fanging, the liquid should be applied more particularly to that part. This plan of caring for manure is easily practised, and I recommend it, not because it is the best, but because it is an improvement so easily adopted, that many, if made aware of its advantages, would be likely to adopt it. It also gives a neat and tidy appearance to stable yards.

The next mistake I will notice is the

TREATMENT OF PASTURES.

We have all heard the expression, "I might just as well as not have had two or three more cows, my pastures are knee deep." Evidently thinking that all was wasted that was not eaten. This mistake results from ignorance of the laws of nature.

We have not yet got a grass and never will get one, nor in fact any other kind of a plant that grows for the purpose of being eaten, trod upon, or cut off. The great end of all animated nature is to produce its kind. In order to do this, the plant strikes its roots in the ground, and its leaves in the air. If those leaves are taken off, the root stops growing, till an equilibrium is again obtained. If the leaves are again and again taken off, the root becomes sickly and the plant ruined. Pasture grasses are no exception to this law; it declares that all plants have a top corresponding to the root. An old, well cropped pasture is as mellow as an ash heap two inches below the surface, while in fence corners, where stock have not had access, it is a stiff sod six inches deep. Turnip beetles, potato bugs, currant worms, caterpillars on apple trees, etc., teach us the same lesson. To be productive, pastures must have a large growth every year, and we must learn to be satisfied with simply the surplus. To take the whole thing as many strive to do is like killing the goose that lays the golden egg. Many farmers have a distaste for anything scientific in farming, not knowing that all good farming is scientific. Science in farming is simply working in harmony with the laws of nature. Anything not in harmony with these laws is a mistake.

A prevalent idea is that land becomes rich by being pastured. It is a mistake. Something cannot come from nothing. While milk, beef, wool, horse-flesh, etc., are being drawn from the soil, the land is becoming poorer.

But while mistakes of this kind are being made with the soil, similar mistakes are made with stock. The difference between the two is that one is a deposit that may be drawn from, or added to,

THE OTHER IS A MACHINE

capable of performing various kinds of work, which to run successfully must be understood quite as much as a steam engine. The engine requires fuel, the animal food. And just as certainly as a locomotive requires a certain amount of coal to move a train a certain distance, just so certainly does a horse require a certain amount of oats, or their equivalent, to do a certain amount of ploughing. If the food is not given, then the owner is face to face with the fact that he is performing the work by the consumption of horse-flesh, besides impairing the machine, running it without grease, and so bringing it fast to destruction. But an animal is something more than a machine. Whether it be horse, cow, sheep or pig, all are capable of suffering. The horse suffers hunger, thirst, the lash, sore shoulder, lameness, cold, flies, etc. And yet how few comparatively, act as if they believed that all this suffering must be at the expense of food. What a mistake this is. Aside from the cruelty practised on this noble animal, the owner suffers in his own pocket, and what is worse in his moral nature. Don't tell me that it cannot be helped. Nine-tenths of it could, if men were humane. Much of it would if it were not for the mistake that suffering does not cost food. To understand the philosophy of sore shoulders, one has only to carry a heavy pole on his own shoulder a short time to be convinced that the point of pressure should be inside close to the neck, instead of out on the shoulder bone. In fact muscles are intended for pressure instead of bones, as we may see by the palms of the hands and the soles of the feet. If this were better understood, much suffering and money would be saved. Instead of padding the harness to save the horse, the horse should be padded with muscle to save the harness,

THE COW A MACHINE.

I must not forget the cow. She is also a machine, but calculated or capable of doing a very different kind of work from the horse, but here lies the principal difference. Both are under the same law of nature. Both to perform their respective functions require food, or if you like fuel, something to give heat and force. Both entail loss to the owner through suffering. Both insist on giving to their owner only the surplus. If the cow is asked to give milk, while only enough of food is given to maintain the animal machine, she commences to turn beef into milk, just as the horse gives his flesh to turn the furrow. Neither will give something for nothing. Now, as it is evident that the machine must be run any way, and that it is only what is over and above that, that we can look for anything, it stands to reason that the more we give the machine to do, the more profit we would have. But many farmers don't seem to think so. They are satisfied to give little and get little.

It is a very common impression with those who don't get much milk, that they have got

THE WRONG BREED,

and an effort is made to improve. It may be by getting a thoroughbred bull of some other breed, but more likely a grade. Nine-tenths of such efforts end in smoke instead of milk. The great mistake is not in the breed, but in thinking that there is a breed that will give milk without food. Advertisements by Holstein breeders have shown that that breed has great capacities for milk production. But I will guarantee they have also great powers of digestion. As a breed they will have the ability of turning large amounts of food into milk, but they must have the food. My advice to dairymen is, to do better with the breed they have, the grade Durhams, before they give large prices for any other. No other breed in the world will consume more food or make better use of it than the Durhams. It may be milk, or it may be beef, it matters little which, there is a good market for either.

To improve the milking qualities, breed from the best milkers, and again from the best, bearing in mind that the sire should be from a good milking mother. But we must not lose sight of the fact that while we are improving in one direction we are losing in another. We cannot get behind the laws of nature, we must work in harmony with them. In getting anything, as I said before it is at the expense of something else. If a man wants a heavy draft horse, he must be satisfied with low speed. If he wants speed he can have it but not along with great power of draft. The best table fowls are not the best layers, and the best layers are not what are called "yellow-legged chickens." The same laws hold good with cows and in breeding grade Durhams we do with them as we do with horses and hens, we combine different qualities and get what we may call a general purpose cow,—a cow not having the highest quality for either milk or beef, but combining those in a degree that no other breed will surpass.

I have already referred to the loss sustained by the sufferings of animals. I will further remark, that a certain degree of heat must be maintained by every animal organism. If it is not done one way, it must another. If it is not done by proper stables, every animal to a certain extent becomes a furnace for the burning of fuel or food. Ice cold water is an expensive drink, because the animal uses part of its food to heat it. I do not say that we can avoid loss in some of these directions. But if the laws of nature were better understood, better practice would prevail, and larger profits be obtained.

MISTAKES IN BREEDING AND FEEDING PIGS.

The pig differs from all other kinds of stock in its inability to control heat. The horse controls it by sweating, cattle, sheep, dogs and poultry by opening the mouth and lolling out the tongue; but the hog does neither, but wets the skin artificially by rolling in the mud. This peculiarity does not arise from a dirty propensity, but from necessity, for really the hog is one of the most cleanly of animals, his instincts rising higher than any other in regard to self help. But the mistaken idea that he is a dirty animal, deserving of very little consideration, results in great loss to the owner. Give him a chance and he will make a bed that many a tramp would envy, but is too lazy to make. Cleanliness, with a dry warm bed, is hog nature; and the farmer who keeps hogs and don't conform to this law in their nature must suffer the consequences in his pocket.

It is a mistake to suppose the same amount of food will produce the same amount of pork in cold weather that it will in warm, for the reason before stated that part of the food is used in keeping up the heat, therefore it is a mistake to put off fattening hogs till the cold weather has set in, as is frequently done. Hogs will utilize milk, whey and other slops, but to get any benefit, they must be warm, as if very cold there may not be enough of food to do the heating. Any breed of hogs that is very active is bad, all their running and chasing about is at the expense of food.

It is a mistake to keep pigs more than ten months before they are made into pork. To kill at from eight to ten months they should be forced along from the first, bearing in mind that it is much cheaper to put on a pound of flesh on a young growing animal, than on a full grown fat one. In the case of beef it is supposed the extra quality makes up, but I don't think the quality of pork increases after it is ten months old.

THE BEST GRASSES.

At the present time, when the permanent pasture question is engaging the attention of the leading Canadian agriculturists, we present our readers with a short description of the principal varieties of grasses used in agriculture, which we hope will not be without interest to farmers who intend laying down land permanently to grass. The prevailing practice sanctions the use of nothing but red clover and Timothy; with an occasional addition of alsike clover and orchard grass. These are unquestionably among the best for the Canadian climate; but it must be borne in mind that the family of grasses is one of the largest and most varied in the botanical world, and from among the hundreds of cultivated varieties it would indeed seem strange if only some half-a-dozen were of any agricultural value. Many prominent farmers have concluded that a number of other sorts are equally as valuable for permanent pasture or hay as the popular sorts; and it is the more extensive cultivation of these varieties which we advocate. For several years a well-known seedsman, Mr. Wm. Rennie, of this city, has been testing the qualities of different grasses, clovers and forage plants, on his farm in Markham, and he informs us that he finds many sorts quite equal to any of the varieties which have heretofore been cultivated to any extent in this country. The following list contains descriptions of the most promising varieties and those which have proved to be valuable as hay or pasture grasses.

AGROSTIS VULGARIS (Red Top).



A popular variety in the Eastern and New England States, where it is extensively sown in connection with Timothy for hay crops. Will grow luxuriantly on almost any soil, and for permanent pasture is one of the best of American natural grasses. Flowers in June and attains the height of about eighteen inches.

AGROSTIS ALBA, OR STOLONIFERA (Creeping Bent, Fiorin, Rhode Island Bent, or White Top).

A variety differing principally from the above in having a white flower, and being of a more creeping or stoloniferous character. The preceding is recommended in preference to this for all purposes except producing lawns, for which agrostis alba is particularly adapted.

ALOPECURUS PRATENSIS (Meadow Foxtail).

is a spreading perennial found in all the best natural pastures in Europe. It is one of the earliest of cultivated grasses, flowering in May, and grows to greatest perfection on well-drained soils of medium texture. Is valuable chiefly on account of its permanent nature and producing broad, long, soft and slender root leaves which are eaten with avidity by all kinds of stock, and which, when cut or eaten down, immediately grow up again. The seed of this grass is very light, weighing only from six to eight pounds per bushel. Meadow fox-tail must not be confounded with the annual grass-weed which grows so extensively in the neighbourhood of farm buildings.

ANTHOXANTHUM ODORATUM (Sweet Vernal Grass).

This fibrous rooted perennial grows to the height of about eighteen inches, and flowers in May. It is perhaps the only variety which is fragrant, and to its presence many of our best pastures and meadows owe much of their charm. Sweet Vernal will thrive and produce a considerable bulk of herbage on light loams or soils of a medium texture, but on black prairie soils it soon dies out. The seeds are quite nervous and when spread out on a cold board, or on a layer of oil, have the appearance of being animated. Owing to the extreme lightness of the seed—ten pounds per bushel—it should be sown with heavier seeds of other varieties.

DACTYLIS GLOMERATA (Orchard Grass or Cooks-foot).



This is one of the best and most widely cultivated of all grasses. It grows rapidly, obtains the height of from three to four feet, and its power of enduring the cropping of cattle commends it highly to the farmer's care. It blossoms about the same time as common clover, and earlier than Timothy, consequently it is well adapted for mixing with these varieties of hay crops.

FESCUE GRASSES.

The Fescue family of grasses comprises a number of the most valuable species in cultivation. They have been grown successfully for nearly two centuries in England, and their cultivation on the continent dates to a period even earlier.

FESTUCA DURIBOULA (Hard Fescue).

is one of the most valuable and important of the Fescue tribe of pasture grasses, and its presence in hay is generally indicative of superior quality. It comes very early, retains its verdure during long continued drought in a very remarkable manner, and is one of the best of pasture grasses. All kinds of stock eat it with avidity, but especially sheep, which always thrive well on the succulent herbage it produces. The plant grows about fifteen inches high, and will succeed on almost any good soil. Does not arrive at maturity for two or three years, after which it forms a thick bottom. *Festuca Ovina*, or Sheep's Fescue, is also a valuable variety. In the renowned natural pastures of South-eastern Russia, the sward is largely made up of this grass, and the hillsides on which it grows are, in the summer season, covered with flocks of sheep driven thither by herdsmen from all the surrounding country. It grows from six to ten inches high, in dense perennial rooted tufts, forming excellent pasturage for cattle, and particularly sheep. It flowers in June and July. In produce it is inferior to some others, but deficiency in quantity is more than counterbalanced by its excellent nutritive qualities.

FESTUCA PRATENSIS (Meadow Fescue).

This is the most popular of the Fescue tribe and deservedly so, as it is one of the earliest, most nutritious and productive of our natural grasses. Both in its green and dried state, it is eagerly eaten by all kinds of stock. It is especially suitable for permanent pasture purposes, and is more adapted to moist than dry soils, but it constitutes a very considerable portion of all high class pastures. The hay from it is plentiful and of excellent quality. There are several other varieties of Fescues, but the foregoing are the most popular. *Fescue Elatior* or Fall Fescue, is similar to Meadow Fescue, but taller and specially adapted to moist soils. *Fescue Rubra*, or Red Fescue, is a creeping rooted variety, specially suitable for sowing on loose dry soils, and for its endurance throughout severe droughts.

PHELUM PRATENSE (Timothy).

The well-known Timothy grown for hay by farmers in Canada.

POA PRATENSIS (Kentucky Blue Grass).



This variety is also known as June Grass, but differs slightly from a native Canadian grass which is frequently known by that name. It should form a portion of all mixtures for Permanent Pasture, and although it thrives best on dry soils, it is also adapted to moist situations. It requires several years to become well established in a pasture, but when well-rooted will yield an abundance of excellent feed. All kinds of stock eat it with avidity. It should also be included in all mixtures for lawns and pleasure grounds.

POA NEMORALIS (Wood Meadow Grass).

Grows from one and a-half to two feet high; has a perennial, creeping root, and an erect, slender, smooth stem. Its chief value is in that it will produce a good crop in moist, shady situations, where it frequently grows quite tall. Cattle are fond of it; it is succulent and nutritious, and is perhaps the best variety for sowing in orchards, under trees, and shaded situations, either for hay or pasturage, and for parks and pleasure grounds.

CANADA WEST LAND AGENCY COMPANY.

Those who have hitherto applied to this Company for copies of the FARM JOURNAL will notice the amalgamation which has taken place by which the JOURNAL becomes, in connection with the RURAL CANADIAN, a monthly publication. It will be the endeavour of the proprietors to extend the circulation still further, in Great Britain and the United States, so as to make it the most important medium of communication between these countries and our Dominion. Parties wishing to advertise lands for sale may obtain full information as to rates, etc., by addressing J. R. ADAMSON, Manager CANADA WEST LAND AGENCY COMPANY, 14 Adelaide Street East, Toronto.

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BRANT COUNTY.—Onondaga Township.

742.—The "Onondaga Farm" is a magnificent property containing 266 acres, of which 190 are cleared and mostly free from stumps. Eighty acres are covered with fine hardwood bush. The soil ranges from sandy loam to clay, and is very productive. It is well fenced with board, rails and trimmed stumps. The buildings comprise a solid roughcast house, 1½ storey, containing 8 or 9 rooms; 3 good frame barns, stabling for 35 head of cattle, with other outbuildings. There are 2 orchards, one old and one young, both bearing. It is conveniently situated to school, church, post-office (½ mile), and railway station about 3 miles distant. Caledonia, where there are stations on the G. T. R. and the N. & N. W. R., is 7 miles distant. Brantford, the county town, 11 miles, and the City of Hamilton about 14 miles. Price, \$12,500; \$5,000 cash, balance to suit the purchaser, with interest at 6 per cent. The farm is very well adapted for stock-raising, the land being rolling, and Big Creek running through it, without, however, making any waste land. It is within 7 miles of "Bow Park Farm."

DURHAM AND NORTHUMBERLAND COUNTY.—Brighton Township.

2156.—This is a good farm, and contains 300 acres, of which 150 are cleared, and about 100 free from stumps; 22 acres in fall wheat, 20 acres meadow, 125 bush pasture and 150 acres in bush, about 80 acres of which is heavy hardwood timber, viz. beech, maple, and a few large pines, the balance is in oak, ash, maple and poplar. The soil is clay loam, nearly level, and does not require draining; it is watered by two springs and two wells; the fences are rail and stone, the dwelling is frame on stone foundation, bricked up 1½ storeys containing 5 rooms and cellar, 26x22; also wing, 20x18, containing 3 rooms; the house was built last year, there is also a frame dwelling, 20x26, 1½ storeys; the barn is frame, 36x57, with stabling under, and was built in 1877; the orchard covers 2 acres, and contains apples, plums and cherries; it is ½ mile to the gravel road; churches are near at hand; Codrington P.O. ½ mile, and Brighton, the market town, is ten miles, and Treton 13 miles. This property lies in a good neighbourhood, and the soil is as fine as can be got in the Province. Price, \$12,000; terms to suit.

ESSEX COUNTY.—Colchester Township.

2389.—A remarkably cheap property of 300 acres, 60 of which are cleared, 50 free from stumps, and balance in bush, consisting of elm, ash, etc. Soil is a clay and gravelly loam, easily worked, well ditched, and slightly rolling; fences rail; well near buildings: frame barn, 40x60, in good repair; orchard of 3 acres, bearing. The farm is situated on the gravel road, school 1 mile; 5 miles from Essex Centre, where are churches of all denominations, railroad station on the Canada Southern R. R.; Post Office at Kilray, ½ mile, and telegraph office at Edgar, ½ mile distant. \$7,500; terms easy. Possession at any time.

HALIBURTON COUNTY.

We offer in the Townships of Dysart, Dudley, Harcourt, Gilford and Harburn a large tract of land admirably adapted for stock raising. It is extremely well-watered, and raises even better grass and root crops than the high priced lands in the front. As the price ranges from \$1 to \$5 per acre, stock raisers can operate a much larger acreage than it would be possible for them to do in lands ranging from \$50 to \$100 an acre. In consequence of this low price the cost of raising animals is reduced to a comparatively very small sum. Intending investors would do well to inspect these lands thoroughly before buying elsewhere. Any practical man who understands his business can easily convince himself of the advantages of this district by personal inspection.

HALTON COUNTY.—Trafalgar Township.

2048.—A very nice farm of 128½ acres; 124 cleared and free from stumps: 20 in fall wheat and 18 in meadow. The timber consists of beech, maple and pine. Soil clay and clay loam, gently rolling, watered by a creek and well, with cistern; fenced with pine boards and wire. Dwelling roughcast on stone foundation, 36x20, 2 storeys, containing

9 rooms, kitchen 20x20, cellar underneath, the same size. The barn is frame, 60x30 on posts, and there is a woodshed 14x21; all buildings in good order. The orchard is 2 acres containing 50 trees of various fruits, pears, apples and pines. The taxes amount to \$28 a year with 6 days road work. The school is ½ mile distant and church still nearer. The post office, Trafalgar, is ½ mile, and the market town, Oakville, 3 miles on the G. W. R. Price, \$7,000; \$2,500 down, balance to suit purchaser at 6 per cent.

LINCOLN COUNTY.—Grimsby Township.

556.—The "Carpenter Farm," containing 101 acres in the highest possible state of cultivation; 93 are cleared and free from stumps, 15 in fall wheat, 29 seeded down, and 17 in grass, while 8 are wooded with black ash, elm, and soft maple, the soil of 55 acres is a rich black gravelly loam, while the 15 next the road are composed of reddish clay loam, but not too heavy; the farm is gently rolling, and is watered by 5 wells, at the house, barn and in the pasture fields, besides which there are 2 soft water cisterns at the house; five acres are drained by well built stone drains; it is fenced with picket, board, rail and wire fences, in good condition; the house is very comfortable, well papered and painted, 6 rooms on ground floor, and one above on a good stone foundation, with cellar, 40x12, and a kitchen, 12x18; it is in first-class repair; there is a frame house for a farm hand, 20x24; with kitchen in rear, 1½ storey, containing 4 rooms, there is a frame bank barn, 54x30, with stabling beneath for 14 head of cattle, and could be made for 24 head if required, with well and root house, also a drive house, 36x36, on corner stones, shed, 60x24 containing six 10x10 box stalls, piggery, 16x18; henhouse, etc., all in good repair. The taxes are about \$30 per annum, and 8 days road work. The orchard contains 400 apple trees—Greenings, Baldwins, Roxburg Russets, etc.; 300 peaches—Crawfords, Barnards, etc.; 75 plums, a number of pears, cherries, grapes and all kinds of small fruits—all bearing, except some cherries. The farm fronts on the main gravel road, running from Hamilton to Niagara, and is within 1½ miles of school house, ½ mile of Methodist church, 2½ miles of English, Presbyterian, Methodist, Baptist and Roman Catholic, all in the Village of Grimsby, where there is also post office, telegraph office, and station on the G. W. R. Much fruit is shipped by the boat from Grimsby pier during the season; Hamilton is distant 13 miles, and St. Catharines, the county town, 15 miles. Price, \$10,000; \$4,000 cash, and the balance in any reasonable time, with interest at 6 per cent. per annum. Possession will be given at any time, on three months' notice, by buying the crop.

OXFORD COUNTY.—Derham Township.

288.—A small farm containing 73 acres, almost cleared, 20 free from stumps, and 2 acres wooded; the soil is sandy loam; rolling, and with good natural drainage; good pine rail fence; a new frame house, 26x34, containing 10 rooms and brick-d cellar, 1½ storeys high; a frame barn, 36x50, on stone foundation; wood house, store room, corn house, cow stable, ice house, slaughter house, and all the necessary outhouses, there are 2 wells, 1 cistern, and a creek on the place, the orchard contains 120 apple, 20 peach 25 cherry trees and small fruit. This farm is within the town of Tilsonburg, a thriving place, being situated on 3 lines of railway; a good farm for a market garden, and cheap. Price, \$5,000; \$2,000 cash, balance to suit the purchaser.

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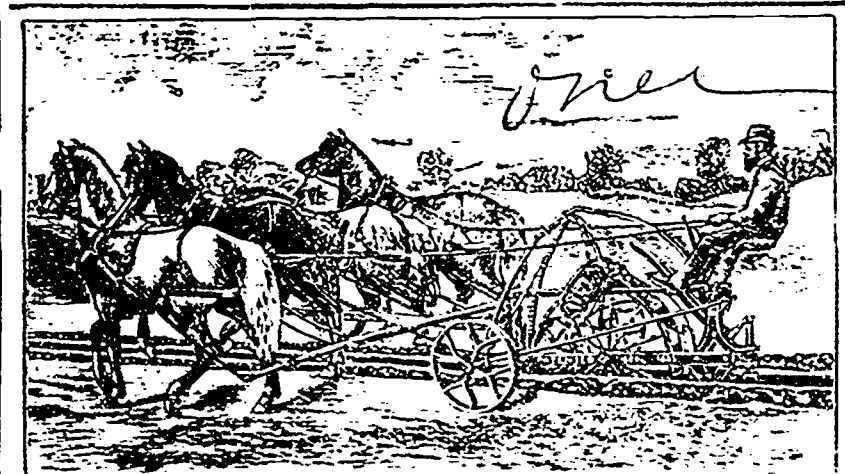
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BROWN BREAD.—Brown bread cut into slices and fried in ham gravy makes a good addition to a dish of ham and eggs.

SCALLOPED CHICKEN. Take equal parts of cold chicken, boiled rice or macaroni, and tomato sauce. Put in layers in a shallow dish, and cover with buttered crumbs; bake till brown. Cold roast turkey, using stuffing and gravy, may be prepared in the same way.

GRUEL.—Put a pint of water on the fire; then take half an ounce of oatmeal; mix it to the consistency of cream, with a little cold water; when the water on the fire boils, pour the meal to it, and let it boil ten minutes; then add a pinch of salt and a teaspoonful of moist sugar.

WHEN roasting a chicken or small fowl there is danger of the legs browning or becoming too hard to be eaten. To avoid this take strips of cloth, dip them into melted lard, or even just rub them over with lard, and wind them around the legs. Remove them in time to allow the chicken to brown delicately.

APPLE SNOWBALL.—Boil half a pound of rice in milk till nearly cooked, then strain; peel and core some large apples without dividing them. Put a clove and some sugar into the centre of each apple, and the rice round them. Tie each up in a cloth separately; boil for three-quarters of an hour, remove the cloth and place on a warm dish.

GINGERBREAD Pudding. Eight ounces of bread crumbs, four ounces of flour, four of suet, a teaspoonful of baking powder, the same of ground ginger, half a teaspoonful of mixed spices and the same of salt; six ounces of treacle, one egg, and a quarter of a pint of milk. Mix all the dry ingredients first; warm the treacle, and stir it well in with the eggs and milk. Boil in a greased basin (leaving a little room for the pudding to swell) for three hours. Currants, raisins, or chopped figs will improve this pudding.

CORN BREAD. A writer in the New York Evening Post says: "The best recipe for corn bread that I have ever seen is here given.—Beat two eggs, the whites and yolks separately, take one pint of sour milk or buttermilk, two tablespoonfuls of sugar, one tablespoonful of butter, warmed so that it will mix readily with the other ingredients; a little salt. Mix all these together well with the exception of the whites of the eggs. Put two-thirds of a teaspoonful of soda, absolutely free from lumps, into a pint of corn meal and sift and stir them into the milk, etc.; then, after beating the whites of the eggs, add them also. Butter a pan thoroughly, and bake in a moderate oven.

We were at a small gathering of friends one evening and heard a young lady give her experience of parties and late suppers, and we must say that we had no idea that so many young people were given to such dissipation.

This young lady stated that she had had a most violent attack of Dyspepsia and Indigestion brought on by such dissipation which lasted for months, and which would in all likelihood have proved fatal, had she not by mere chance been told of a simple but none too well-known remedy. To use her own most expressive words which were delivered with great earnestness:—

"Oh! my goodness me, but do you know I had the most terrible attack of Dyspepsia and Indigestion you could imagine. My! but I was awfully bad, I could not eat anything without suffering the greatest pain. Papa and Mamma were very much alarmed about me, particularly when none of the doctors could do me any good. I kept getting worse and worse all the time. Papa got me everything he could think of but all to no purpose. One day a friend came in and while discussing my illness enquired if I ever tried Dr. Carson's Stomach Bitters? No! I replied, but dear me! I have tried almost everything else and nothing has done me the least bit of good. After considerable persuasion my friend induced me to let papa get me a bottle of the Doctor's Stomach Bitters, and do you know after taking a few doses I began to feel ever so much better, and soon was completely restored to health! My! it is just a splendid medicine!

As we listened to this bright young girl we thought of the multitude of pale faced men and women in this Canada of ours who are needlessly suffering the tortures of Dyspepsia and Liver Complaint and we thought could they have heard this young lady's eulogy of Dr. Carson's Stomach Bitters, one of the best and safest medicines known they would not be long in availing themselves of this good and pure medicine.

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A timely use of hop Bitters will keep a whole family in robust health a year at a little cost.

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SHEEP AND SWINE.

THE RIGHT PIGS.

I am pleased to see that my friend Harris, in his instructive "Walls and Talks," has finally turned the corner on the pig question, and started on another road. There is wisdom in this. "The small breeds fatten so easily that they are deficient in vigor, and lack appetite and digestion." He might also have added that they lack the inclination to eat any food but the best. I am also much gratified that so good a thinker and writer has discarded the idea that Essex is the best hog for the farmer. In my way of thinking, the little chunky, roly-poly "lard tubs" are the most unprofitable of all the different breeds of swine. While writers have been praising them, and making a hobby of "early maturity," the stomachs of people have been getting away from them, and the profits of the growers of such hogs have been growing less. Take out the bone and more than fifty per cent. of these hogs is simply fat, and who now-a-days eats fat? The fat on the hams and shoulders, more than half of the bulk, goes to waste. This makes the lean portions of these animals too costly. Only a small part is suitable for sausage. People cannot afford to buy pork for soap grease, however much it may be puffed up and admired when alive. "Early maturity," as taught by these advocates of small breeds, is a delusion. A pig of the small breeds is always matured according to their notion. My observation has taught me to make the hams and shoulders, and the sides of a hog, or in other words, the body first, and the lard afterwards. My idea of early maturity is to have a breed which will make, or have such a body, within a profitable period, and take on fat enough to make healthful and palatable flesh for human food. Such pigs are able, also, to go after their food and to help themselves, and they have the development of bone, muscle, and tissue, so that they have strong appetites and most excellent digestion. They will convert orchard grass, clover, sweet cornstalks and corn, peas, roots, apples, or even turnips, nature's own food, into the sweetest and best of pork. This is the breed the Doctor must have meant, which Mr. Harris thought was possible, though he said "I do not happen to know the breed." It is the breed which has more lean meat than any other, and sells in market for fifty cents or a dollar more per hundred on this account that the farmers want.—F. D. Curtis, in *American Agriculturist*.

HOGS AT THE SMITHFIELD SHOW.

This division of the show was of least merit; in fact it was disappointing and not up to the usual standard at Islington. The competition in the classes for large whites and middle whites was so meagre that the breed cups were withheld. The small whites were better, the Earl of Radnor taking the breed cup and reserve number for the honour. There were some good pens in the black breeds, Mr. Tom Coate taking the breed cup with an "improved Dorset." Berkshires formed two very good classes, the breed cup being awarded to Mr. Bruce Willis, of Winslow, for two pigs over nine and under twelve months old. There were some very good entries in the section for single pigs. The champion plate, value £20, for the best pen of pigs in the show, was won by Mr. Tom Coate, of Sturminster Newton, with a pen of cross-bred pigs, from an "improved Dorset" boar and a white sow, and the reserve number for this plate was given to Mr. George Mander Allander, of Roehampton, for a pen of excellent Tamworths—a breed of red pigs which is

shows. These red pigs have real snouts, these not having, as yet, been improved off their faces, and that being a notable fact in connection with any breed of pigs at the present day, we may express a wish that these famous swine may poke their noses further afield than they have yet done whilst their snouts remain to them. When our readers see a red pig let them make a note of him.

VALUE OF SHEEP MANURE.

The profits of keeping sheep are not all to be derived from the wool they produce, or increase in numbers; for their manure is one of the very best fertilizers we have. Although sheep will not thrive if kept too long upon the same field, yet the soil upon which they run will continually increase in productiveness. Every farmer knows that a moderate coating of sheep manure will renovate worn soil more than a heavy coating of common barn-yard manure, and more particularly may it be used with profit on wheat land.

Greater pains should be taken in seasons when sheep are yarded to secure their droppings. Straw, forest leaves, etc., are good absorbents, and a fresh coating should be put in the sheds at least once a week. Before putting on the fresh bedding, clean from the surface all that can be removed, and put into a pile, thus keeping the sheds in a healthier and sweeter condition, and besides saving a greater amount of manure.

We have heard men assert that they could make an absolute profit greater from the manure their sheep would furnish, by saving both solid and liquid excrements, than from their fleeces. A farmer in the east says that he believes the profits derived from sheep by way of manure will amount to five dollars per head in value to him every winter.

There has never yet been one-half the attention paid to saving this fertilizer among farmers generally that there should have been, and we hope the discouraged wool-growers, who talk about no profits from fleece and increase, will turn their attention to bringing their farms up to a higher state of productiveness, and make their flocks the means of this wise improvement.

Where sheep are not kept closely yarded during winter the flocks may be fed upon the poorest spots in the pasture when the weather is fine. A marked difference will be seen in the growth of grass upon these plots the next season.

Sheep from the facility and rapidity with which they are matured, the rapidity of their increase, their triple use for food, raiment and manure, are the most available means of supplying a deficiency of animal food. Nature and the art of the breeder have made the sheep the most perfect machine in existence for converting grass and grain into flesh.

SOME OF MY EXPERIENCE WITH SHEEP.

About a week before my sheep come in, I feed them once a day oats and wheat middlings mixed. If they do not have grain, they frequently will not have any milk, especially if they are thin or old. Feeding as I do, I never had but one that had no milk for her lamb when she came in. A neighbour of mine told me that he had lost a number of lambs because the sheep did not have any milk. He had fed them no grain. When my sheep come in I always catch them and see if they have any milk and start it, for it starts hard at first. Another man told me he had lost a number of lambs and the sheep had plenty of milk. He either did not start the milk or the

in cold weather I take a little warm milk in a bottle with a rubber nipple and give the lambs a little when I first find them, which warms them up and gives them strength to find their milk.

I never keep an old sheep over winter if I think she will not raise a good lamb. If she raises a small ewe lamb I cannot sell it readily and so keep it, and the consequence is I raise more scrub lambs. I believe in killing the old sheep and throwing them away if you cannot fatten or sell them, or use them in any way. I killed one last December; after skinning and dressing it I hung it up in a cool place, and fed it to my hens, and I believe I got as good as \$4 for the old sheep. I think I got that much worth of eggs more than I should without the meat. No hens around here laid as many eggs as mine did through those winter months. I have nineteen hens. I sold eighteen dozen eggs in January at thirty-eight and forty cents per dozen, besides using some.

Some complain that sheep waste as much hay as they eat. Mine cannot with the manger I feed them in. Make a manger twelve feet long, three feet wide and three feet high, with no top. Raise it four or five inches from the ground; cut ten holes in each side just long enough for the sheep to put their heads through easily, making the lower side of the holes six inches from the bottom of the manger. Then there is no chance to waste the hay, as their necks fill the holes, and there is no chance to poke it out. The sheep each have a separate place to eat, and the stronger ones have no better chance than the weaker ones.—Lester L. Lowry, in *Rural World*.

The tendencies of the times in sheep husbandry, says the *Canadian Breeder*, are to the production of more and better mutton, with less attention to the amount and quality of wool. This is proved by the growing popularity of the Southdown and other breeds of mutton sheep; and is justified by the low price of wool as compared with the increased cost of production. Wool-growing has often been a good business on low-priced lands, but as these become more valuable, the well bred mutton sheep takes the place of the wool-bearer and proves itself one of the best paying animals on the farm.

It is very difficult to winter young pigs profitably unless the farmer can provide exceptionally warm quarters, and even then a severe winter makes extra care and feeding necessary. The latest litter for wintering should be farrowed not later than July. The pigs will then get size and body enough before cold weather to withstand the winter, and will bear heavier feeding than is the case with younger animals. The trouble about wintering very young pigs is that in coldest weather they must be fed considerable corn, which injures their digestion. Sows coupled now will farrow at a good time for the young pigs to run in grain stubbles and get a good start.

There is no necessity at this day for the breeders of improved Berkshires to resort to an occasional outside cross with another breed for the purpose of avoiding the evils of continuous breeding from animals of the same stock. Excellent strains of improved Berkshires are found in almost every region of the globe where swine are kept. The best families, thus widely separated, are subjected to different climatic influences, and the most varied systems of management. By this means all the real or supposed advantages to be secured by the introduction of fresh blood can be as surely and without doubt more safely reached by the bringing together again parts of families

HORSES AND CATTLE.

GUERNSEY CATTLE.

It is supposed that the Jersey and Guernsey breeds of cattle originated in the same ancient stock. What that stock was, whether native to these islands, to the Continent, or to Great Britain, not even tradition now attempts to say. It is certain, however, that for many years the Guernseys have been kept pure from admixture with all other breeds, not even excepting the Jerseys, and, having been thus bred for many generations, with the establishment of a special quality in view—the making of large quantities of fine butter—that quality has become so firmly fixed in both breeds that it is transmitted in a large degree to all descendants, whether pure or cross-bred.

Jersey or Guernsey butter never needs the addition of any foreign coloring matter, even in the depth of winter, to give it the rich, golden hue so greatly prized; not only this, the flavour of the butter made from pure-bred cows of either breed is claimed to excel that of other breeds, especially in the winter. As butter makers, there is little difference between the two breeds. The Guernseys have not yet shown the high records claimed for a few Jerseys, but this is at least partly because they have not been subjected to the same treatment.

Guernseys have not yet become as popular as Jerseys, owing chiefly, no doubt, to the fact that they are not so attractive to the eye. The Guernsey has a little less of the deer-like form than the Jersey; it is also larger, cows occasionally reaching the weight of 1,200 pounds, and bulls that of a ton or over. These causes combined have also prevented the breeding to solid colours, which has been so much practised with Jersey, and consequently the Guernsey is generally a spotted animal, and lacking in the black points which are so sought after by breeders of Jerseys.

It will be seen from the above facts, and from the appearance of the cattle, that there is much promise of the Guernsey as a breed to improve the common dairy cattle of this country. In breeding high-grade Northern cows to a Guernsey bull, the farmer will be practically certain of a good dairy animal in the calf if it should be a heifer, or a good beef animal if it should be a bull; and this is a point of no small importance.

Guernsey is a small island, only about seven miles long by half as wide, and its total cattle population is but about 1,000, not more than half of which can be used to advantage in this country. Consequently it will be many years before Guernsey blood can materially affect American cattle. At present, however, there is a field here that promises good returns to those who judiciously work it. The great popularity of the Jerseys has given an impetus to their breeding, and animals of real merit are now held at very high prices; but this "boom" has not reached the Guernseys, to any great extent at least, and the sons and grandsons of cows which have tested seventeen to nineteen pounds of butter per week may be bought at \$100 to \$150, less than half the prices usually asked for Jerseys of equal breeding. — *Farm and Fireside*

GRUBBING, says an exchange, may be done right and it may be done wrong. It is an objectionable practice to raise a dust in the stall, especially when the animal is eating. If there is much hair and dirt to fly, let the work be performed outside. The animal should not be irritated or tormented with the comb; if the skin is tender

NOTES ON HORSES AND CATTLE.

These horses should have some exercise, if not more than a drive of a mile or two every day in winter. This helps to keep the muscles firm, promotes good appetite and fits the animal for work when spring comes. The very best way to manage horses is to feed liberally, and work them all the year excepting Sundays.

BECAUSE pure stock is costly many farmers think to economize by breeding from half-blooded animals. This is always a mistake. Mongrel very rarely reproduces even its own excellence in its progeny. It is fortunate that this is so. Were it not, there would be small encouragement for breeders of pure stock, and animals of all kinds would degenerate more rapidly than they do. Mongrel breeding shows its bad effects most quickly with poultry, but it is equally bad for all kinds of stock.

A BULL that proves a valuable breeder should be kept as long as possible, and to this end careful management will be needed to prevent him from becoming vicious. A ring should be put in his nose and he be gently but firmly made to know that he has a master. If not teased by boys, and kept under one management, a bull may be retained until he becomes too old for service. Much of the poor quality of farmers' stock is the get of young, immature bulls.

A YEARLING colt is apt to be a sorry-looking animal. In fact, it is quite likely to be really sorry, and its owner, too, for that matter, that it was ever born. Under poor keeping some of the most valuable horses were as colts sold so cheaply that their price could not have more than paid the service fee of their sire. Yet in these cases we usually find that the colts have improved strains of blood in them which fully explain their excellence in after life. There is a lesson in this for farmers who often complain that other classes get much more for their work than they can. The work that is poorly done rarely pays expenses. What pay should a farmer expect who keeps a valuable animal so poorly that it looks like a scarecrow?

ABORTION IN COWS.

Abortion occurs most usually near the seventh month, but may occur earlier or later. It attacks heifers as well as old cows. The symptoms are seldom observable more than two or three days before the calf is dropped; sometimes only an hour or two. Aborted cows increase in their flow, after abortion, and heifers make small bags and give a little milk, but rarely as much as if they had completed their full time.

Of the cause of enzootic abortion, very little is really known. An injury, as slipping on the ice, or stable floor, or a blow from a brutal man's boot, or the horn of a ugly companion, may be the cause in an individual case, after which others may follow without apparent cause. Bad food or water, or impure air may also cause it. To guard against it, guard against all injuries and other unfavorable treatment. But when a case occurs, the first step is to remove the aborted cow to a room by herself, away from all pregnant cattle, in a distant building if convenient, and have her taken care of by some one who does not have the care of healthy cows. Disinfect the hospital frequently and keep it as clean as possible, using whitewash, or carbolic acid wash, or hot water, or all of them, to purify the room as often as necessary. Use the hospital for lying-in cows. Bury or burn the litter and filth, or if used to manure the land, keep healthy cows from coming in contact with it for several weeks or

THE GALLOWAY.

"Farmer," in *The Breeder's Gazette*, says:— Among the numerous breeds of beef animals claiming the attention of the American stockman, there is none, it appears to me, better adapted to the wants of this day than the black Galloway. In looking into the qualities of this breed, we find points of excellence—not found in any other—which will in time, doubtless, make it a favourite among the beef producers of this country. Let us notice a few of his points of "make up": round and long body, well-ribbed home, small neck bones, heavy hind quarters well let down to the hock, short square head with heavy nostrils; the whole body well let down to the ground, large through the heart, thus denoting a good circulation of blood, hence one of the reasons for their ability to stand the severest weather of our extreme winters. The whole body is clad in a thick coat of short fur, through which, in the autumn, a coat of hair, four or five inches long, protrudes. In the spring the long hair is shed, leaving only the glossy black fur, until the following autumn, when they again commence growing their overcoat. Add to these points the fact that the Galloway in size is not inferior to any of his numerous beef rivals, it will doubtless be the favourite of the American stockman.

As regards the milking quality of this breed, it is better than generally supposed. Galloway breeders of this country have had in view simply the beef product, and have generally been slow to advance their claims in this respect, but are now keeping pure-bred animals for milk and butter purposes. In the dairies of their native land the Galloways have always been held in high esteem for their milk and butter qualities, and have always come in for the greater share of prizes. Possessing this quality, they are thereby enabled to impart to their young that nourishment so much needed for their development during the first few months of their existence. During the recent Fat-Stock Show in Chicago, a calf was exhibited, and notwithstanding the fact that its only food had been grass and milk from its dam, its weight was 700 pounds at seven months old.

As before intimated, the Galloway is better able to endure the severe winter storms than any other breed. The coldest winter days they are found with their face toward the storm, while others are "about-face." Turn twenty head of them upon range in the autumn and the following spring they are found all right.

Bearing in mind that the stomach of a horse, says the *London Field*, is small in proportion to the size of his frame, he requires feeding often, and, though three times a day is sufficient, four times is better. Unlike human beings, horses should drink before they eat, because, owing to the conformation of the horse, water does not remain in the stomach but passes through it into a large intestine called the cæcum. If a horse be fed first, the water passing through the stomach would be likely to carry with it particles of food, and thus bring about colic. Whatever a groom may say, let a horse drink just as much as he likes. If he be watered four times a day he will never take very much or too much to be good for him. A horse, it must be remembered, is fed on dry food, and thus with the strong work done by a hunter, always produces feverishness, which a sufficiency of water tends to allay.

"Mamma," said a little girl, "I think I've got ammonia." "You mustn't say ammonia, dear; you must say pneumonia." "But it isn't none."

CANADA SHORTHORN HERD-BOOK.

Transfers up to February 20, 1884:—

H. Idolhea (vol. 9), by Prince Rupert [12565], John Payne, Cayuga; John Bird, Canfield.

H. Larunda (vol. 9), by Prince Rupert [12565], John Payne, Cayuga; John Bird, Canfield.

H. Cynthia (vol. 9), by Lord Languish 3rd [12089], John Payne, Cayuga; John Bird, Canfield.

H. Rhea (vol. 9), by General Butler [8603], John Payne, Cayuga; John Bird, Canfield.

B. Cadmus [12566], by Prince Rupert [12565], John Payne, Cayuga; John Bowness, Cayuga.

B. Eryx [12567], by Prince Rupert [12565], John Payne, Cayuga; William Coverdale, Canfield.

B. Prince Rupert [12565], by Earl of Goodness 5th [8514], William Douglas, Caledonia; Charles Walker, Cayuga.

B. McKenzie [12569], by Diadem [11693], Alex. Wilson, Bainsam; John Dunn, Kinsale.

B. Western Comet 3rd [12668], by Western Comet [9521], A. J. Storer & Sons, Norwich; H. B. Dixon, Alton.

H. May Queen (vol. 9), by Prince Charles [10318], J. W. Gibson, Niagara; John H. Bonistell, Gordon Mills.

B. The Laird [12574], by Lord Bright Eyes 1st [7319], James Moore, Harriston; Joseph Walker, Mildmay.

H. Bores (vol. 9), by Prince Arthur [12579], Robert Shearer, Virgil; James Hiscott, Virgil.

B. Golden Prince [12589], by Statesman 1st [44906], John Isaac, Romanton; Benj. Hogarth, Cromarty.

C. Nelly Gray (vol. 10), by Oxford Bay [1807], Thos. Robinson, Kintore; John W. Robinson, St. Mary's.

C. Minnie May (vol. 10), by Buckingham [8184], Thos. Robinson, Kintore; John Sims Kintore.

H. Strawberry 2nd (vol. 9), by Senator [7837], Thos. Laidlaw, Guelph; John L. Hobson.

H. Milie (vol. 10), by Rose's Oxford [9276], George Ashmore, Deloraine, Man.; Jas. Cavers, Deloraine, Man.

R. Grover Cleveland [12590], by San Polo [9321], A. R. McGregor, Sarnia; Peter McGregor, Sarnia.

C. Victoria 5th (vol. 10), by The Cavalier [7944], Neil Stewart, Lumley; Peter Morrison, Chislehurst.

C. Victoria 6th (vol. 10), by The Cavalier [7944], Neil Stewart, Lumley; John McQueen, Lumley.

R. Royal George [12596], by Royal Brampton [11967], Benj. Shub, Berlin; Levi & David Shantz, Hayville.

R. Crown Prince [12595], by Victor Emanuel [11866], Isaac Bricker, Roseville; Benj. Bricker, Roseville.

B. Duke of Connaught [12597], by Gladstone [8623], Peter Smart, Palmerston; Wm. Jackson, Palmerston.

B. Duke of Albany [12598], by Gladstone [8638], Peter Smart, Palmerston; John McTaggart, Mount Forest.

R. Darby [12599], by Springwood Prince [9411], A. White, Guelph; Owen Heffernan, Guelph.

H. Phoebe (vol. 10), by 3rd Duke of Oneida [11794], David Roth, Grass Hill; C. L. Zehr, Tavistock.

B. Lord Elgin [12611], by Chromo 2nd [8237], John McCausland, St. Thomas; Walter Lewis, Orwell.

R. Star Inulrum [12612], by Western Comet [9521], A. J. Storer & Sons, Norwich; J. Rice, Carrie.

B. Lorne [12608], by The Cavalier [7944], Neil Stewart, Lumley; Alex. McDonald, Rodgerville.

H. Marion (vol. 10), by The Cavalier [7944], by Neil Stewart, Lumley; Thos. Cadmore, Lumley.

H. Victoria 4th (vol. 10), by Washington [6400], Neil Stewart, Lumley; Anderson Brothers, Lumley.

H. Euen Wye (vol. 10), by Sir John [6287], John McGork, Thorndale; John Steele, Thorndale.

B. Garafraxa Chief [18015], by Sultan [10981], John Doyle, Elora; Wm. Irving, Luther.

B. Lord Wolseley [12610], by Sultan [10981], John Doyle, Elora; Geo. Wilson, Moorfield.

B. Flamboro' Mazurka [12600], by Mazurka Duke [5703], R. B. Ireland, Nelson; John and James Evans, Waterdown.

B. Mazurka of Woodhill [12601], by Mazurka Duke [5703], R. B. Ireland, Nelson; Wm. Spence, Waterdown.

H. Scarlet Velvet (vol. 10), by Mazurka Duke [5703], R. B. Ireland, Nelson; Wm. Spence, Waterdown.

B. Young Britain [12517], by Emperor [5193], Wm. Mark, Little Britain; Wm. Fell, Bury's Green.

B. Duke of Winterbourne [12616], by Earl of Grass Hill [7031], Wm. Glennie, Conestogo Thos. Strachan, Linwood.

B. King George [12620], by 15th Seraph [10321], Wm. Glennie, Conestogo; Wm. Chapman, Brucefield.

H. Bertie (vol. 10), by Sir Walter [11365], Francis McBride, Binbrook; Alex. Donaldson, Binbrook.

B. Captain Bill [12622], by Lord Lorne, [8862], Francis McBride, Binbrook; Alex. Donaldson, Binbrook.

H. The Fairy Queen (vol. 10), by Captain Brant [8200], Wm. Dent, Drumquin; Peter Turner, Drumquin.

B. Pizarro [12624], by Prince Leopold [19334], Edgar Lasby, Inverhaugh; Levi Lasby, Ponsoby.

H. Princess of Cavan (vol. 10), by Hearty Prince [10000], W. Phillips, Cartwright; Richard Matchett, Millbrook.

B. Ranger [12625], by Constance Duke, [8262], Samuel Harmer, Wolverton; Christian Shantz, Bright.

B. Robbie Burns [12627], by Waxwork [8012], B. Gibson, Whitby; Robt. H. Leary, Peterboro.

B. Duke of Argyll [12036], by Butterfly's Duke [11763], Thos. Dunbar, Harriston; D. J. and D. Wilkinson, Harriston.

B. Gay Boy 2nd [12606], by Blooming Mayflower [8153], Andrew Ross, Green Bank; D. Jackson, Woodville.

B. Lord Simcoe [12607], by Gay Boy 2nd [12606], Donald Jackson, Woodville; Angus Grant, Beaverton.

B. Calgary [12608], by Gay Boy 2nd [12606], Donald Jackson, Woodville, W. Bain, Beaverton.

It is true, as remarked by the *National Stockman*, that the value of farm teams during the busy season depends a great deal more upon the condition they are in when they enter upon it than many suppose. This is more especially true in regard to the heavy work of early spring than any other time, and the farmer who has not already begun to temper his teams for the work they have before them certainly stands in his own light.

A COLORADO sheep-grower of large experience has never failed to cure scab in sheep by dipping them in a solution of sulphur and lime, the proportion being twenty-five pounds of sulphur and twelve and one-half pounds of lime to one hundred gallons of water. The liquid is kept at from 110 to 120 degrees of the thermometer in the dipping vat. He also feeds sulphur with salt regularly.

THE day is not distant when Canadian farmers will take an active interest in breeding and feeding good mutton sheep for the market. We say not far distant, for the reason that it seems impossible that farmers can long neglect to make good mutton when the demand calls for a first-class article. In breeding a cross-bred the sire should be a thoroughbred. There is no breed of sheep that will not respond to good care and feed, but some are more profitable feeders than others, attain larger weights at an earlier age, and make a better carcass of mutton. The weights attained by the different breeds at the Smithfield Fat Stock Show in 1881 and 1884, both as yearlings and lambs, are interesting.

HOUSEHOLD HINTS.

ECONOMICAL and very useful bibs for teething children are made of honeycomb canvas. They may be bound with tape, or trimmed with a cheap but pretty cotton edging, which can be bought in packages containing five or more yards in a package.

A pretty lambrequin may be made of very dark garnet or olive green Canton flannel, with a bordering of Japanese crape pictures framed in narrow black velvet. This bordering should be lined with silesia, or undressed cambric, and the fringe may be made of worsted to match the Canton flannel, mingled with bright silks.

A Dutch hotel-keeper in the Transvaal clarifies the turbid water of the district by throwing half a dozen dried peach kernels, slightly cracked, into a large butt of water. This renders the muddiest water clear.

To clean lamp chimneys, hold them over the nose of a tea-kettle when the kettle is boiling furiously. One or two repetitions of this process will make them beautifully clean. Of course they must be wiped upon a clean cloth.

WOMEN who admire the beautiful but have no time to do fancy work can get one of the very handsome embroidered towels that are now so much used, and tying it in the middle so that the knot lies flat, spreading out the ends gracefully and fastening it on a large chair back, will have a lovely tidy with very little trouble to themselves.

THE rubber rings used to assist in keeping the air from fruit-cans sometimes become so dry and brittle as to be almost useless. They can be restored to a normal condition, usually by letting them lie in water into which has been put a little ammonia. Mix in the proportion of one part ammonia and two parts water. Sometimes they do not need to lie in this more than five minutes; but frequently a half-hour is needed to restore their elasticity.

A fancy dish of potatoes for tea is made by pressing mashed potatoes through a colander; let them lie lightly in the dish just as they fall, then set them in the oven to brown. They should be well seasoned with butter, pepper, and salt before they are put through the colander. If you like potatoes prepared in this way, it is a time saving invention to have a colander made for this purpose. Take an ordinary tin pan, and have holes punched in the bottom of the size you require; it will then take but a few minutes to prepare a large dish.

WHEN you are tired of plain boiled or fried eggs, try this way of serving them for breakfast: Butter a pie-plate and cover the bottom with fine bread crumbs, then break enough eggs for your family, and drop them on the plate, and cover with a layer of bread crumbs; sprinkle pepper and salt over this, and put some little lumps of butter over it. Bake in a quick oven for five minutes.—N. Y. P. st.

Russian crash table-covers, edged with Russian lace, are pretty for round tables in bedrooms. They may be ornamented still more by embroidering a border in working cotton.

If you wish to give a suggestion of colour to your white shades with antique lace insertion and edge, line the insertion with a band of scarles. Ribbons may be used for this, or a strip of red holland. If holland is used, be sure that you choose the kind that is warranted not to fade, as the other is changed by sunlight to a dull brown.

"If you don't keep out of this yard you'll catch it," said a woman to a boy in West Lynn. "All right," answered the gamin, "I wouldn't have come in if I'd known you folks had it."

THE DAIRY.

FEEDING AND MANAGEMENT OF DAIRY COWS IN THE SUMMER.

BY THOMAS LOCKART, EAST ZORRA, ONTARIO.

The transition of the dairy cow from stable feeding to grazing in open field is a matter which needs some care and judgment. The modes of bringing about this welcome change will necessarily differ according to the varied circumstances of dairymen. Not unfrequently, as the grazing period draws near, the farmer's store of food becomes scanty, the varieties few and inappropriate; perhaps he has no money nor disposition to buy more food. Hence his herd are permitted to graze, more or less, in the early stages of grass growth, and as soon as it is advisable, under his peculiar circumstances, the dairy cows are asked to hunt their own living upon the fields. It is very unfortunate when this course has to be pursued, because it is impossible to calculate the damage entailed both upon the cows and the pasture. However, one general rule should be observed by all, and that rule is, the transition from the drier food of the stable to the greener of the field should not be too sudden. If a dairyman has food of a juicy kind, such as the mangold or turnip, we would advise him to give a liberal portion of it to his cows for a few days before turning on grass. Then let them into a grass patch for a limited time each day, for two or three days; now they might be turned into a pasture of short growth, not newly seeded, for the first evening, after which the danger of serious consequences is practically over. To counteract in some measure the effects of the fresh grass in the system of the cow, it might not be unwise, when she is first put to graze, to give her for a week a little wheat bran or meal daily.

The transition period now being past, and the dairy herd properly accustomed to the grass, we are not prepared to say that it will pay any one to supplement the grazing with meal, bran or any other food. Some, we are aware, say it will pay, but figures would be more convincing than assertions. But there are periods during the summer season, when it is necessary to supply the dairy cow with other food besides that which she may be able to get on the pasture field. There are two particular causes which render summer feeding necessary, viz., heat and frost. An acre of pasture may not produce the same amount of grass one year as another. The grass growth, like that of other herbaceous plants, depends very much upon certain favourable conditions of the weather—warmth, sunshine, and rain being all-important. Hence a given number of cows may be able to get an abundance of grass in the fields during a certain period one year, whilst the supply of grass may be quite insufficient during the same period another year. Further, the acreage of pasture land allotted to a certain number of cows may be ample, yet during ordinary seasons the grass will become dry, crisp, and unsatisfactory during the month of August, and the first part of September. Again, still later in the season, when the after grass has been eaten down, the frost has spread its blighting influence over vegetation, and the fields have donned their coat of grey, special sources of food must be resorted to. It is expedient, indeed necessary, that the dairyman should make ample provision for the periods of scarcity upon the pasture lands. These periods will vary in length, according to seasons and attending conditions; but the wise agriculturist seeks to be prepared for all contingencies. To supply these times of want, succulent food is the

most appropriate, such as American corn, white turnips, rape, vetches, etc. The two former, when properly handled, may be fed during the fall and early winter, accompanied by the best results. It is a very foolish policy to let the dairy cow to run down her yield of milk extremely low during certain periods, rather than produce the required food and then take time to feed it out. If the flow of milk in the cow is arrested to any considerable extent by the starving process, it can never again be fully restored by a course of feeding.

If the greatest possible yield of milk from the dairy cow is desired, the milking process should be judiciously executed. Were all the other conditions favourable to the milk yield duly supplied, and yet the one condition of milking properly found wanting, much of the dairyman's care, labour and expense would find no response in the milk pail. The cow should be milked in as short a time as possible consistent with gentleness. Very few slow, sluggish persons are fit to milk a cow. Again, careless milking is the cause of great loss. The dairy cow should be milked out thoroughly at each milking. But it too often happens that there are those in the milking yard, who are either constitutionally careless, reckless, or deceitful, and hence, various amounts of milk, from time to time, are left in the udder of the cow. This condition will gradually dry up the flow of milk, and it is impossible to estimate accurately the real loss entailed. Too much attention and care cannot be given to this part in the management of dairy cows. Unusual noise and exciting causes of any kind should not be allowed to disturb the dairy herd in the milking yard.

The general management of the dairy herd should be characterized by regularity and considerateness. Much of the profits of the dairy cow is thrown away on account of irregularity. Punctuality is not only important in our business relations with men, but we should practise it in our relations with the cow. There should be a time set for feeding, watering, salting and milking. System cannot without loss be disregarded in the management of dairy cows. If the cow is to yield a continuous flow of milk, she must not be starved to-day and over-fed to-morrow; allowed to rage with thirst at one time, and to gorge herself with water at another, and crazily to race the fields with imploring bawl in search of salt this week, and next week receive a double portion. Such management is preposterous and cannot be too severely denounced. But not only should the ordinary conditions of success be duly supplied, but the thoughtful and considerate dairyman will seek to anticipate the wants of the cow, and effect such changes in her pasture or feeding as may contribute to the best possible results.

DAIRYING.

BY M. McQUEEN, EGMONTVILLE.

With the vast number of cheese and butter dairies it may seem foolish to advise still more. Like the young doctor who complained to the professor that the profession was over-crowded, and was told that there was room enough at the head, so it is here; there is room yet for a large quantity of superior grade, and for no other. In cheese Ontario generally has won laurels in foreign markets, although some of the pioneers in the industry have forfeited their good name by the use of the skimmer. By not only keeping the stand which we have taken, but if possible raising it still higher, the aristocratic consumers of Europe will become our patrons, and cause us not to regret the opening of the wheat belt of the prairie, or the lessened demand for grain for

malting purposes. It will not do, however, for all to rush into cheese making, which would bring a glut in the export trade and tend to shorten the beef supply; in this we must sandwich in some butter and keep up an annual yield of young stock to supply the dairy and butcher's stalls of our mercantile and manufacturing centres. The two branches of dairying, though running side by side, can never run conjointly; since stock for the cheese factory is not suited for the creamery, nor are those prime butter producers fit to bring steers to cross the Atlantic. For these reasons dairying divides itself into two distinct branches. The Durhams and their grades must make the cheese and beef for foreign markets; and the Jerseys and Canadians and their grades make the butter and beef for home consumption. When our people bend their best energies to it, I will stake my reputation that our own people fed on such beef and butter, will outstrip in energy and quality of mind and muscle any other fed on Durham products.

WHEN SHOULD COWS COME IN?

A farmer, giving his views on the management of cows where but few are kept for butter making so that the greatest yield from them may come at such a time as the business is most profitable and the most readily performed, thinks that the cows should come in early in the fall instead of early in the spring, thereby avoiding the labour and vexation of trying to manufacture and sell butter in the heated season of the year, when it is difficult to produce a good article, or to keep it any length of time sweet, or sell it at any price. The other parts of the year, he says, good butter can be made, and will readily sell at a good price as fast as it can be produced and put upon the market. He argues that cows which go dry a few weeks in hot weather, while the pastures are flush with feed, will recuperate and gain new strength very fast at that time, and young cows and heifers will develop their bags and give more milk, and be more profitable during the year, than to drop their calves earlier in the season.

The milk is richer the nearer the cow approaches the drying-up time.

Get rid of all inferior cows. There is no stock more unprofitable than a poor cow.

Milk at six o'clock, night and morning—at least at as near equal intervals as possible.

It is said that the milk of cows that are salted regularly churns much more easily than the milk of cows not salted.

The practice of condensing and canning milk, instead of manufacturing it into butter, is stated to be spreading extensively in Ireland.

One cow that will give 5,000 pounds of milk in a season will bring more net profit than three cows producing only 3,000 pounds each.

Creamery butter commands better prices than the best farm butter, for the reason that it is always of a uniform quality, something almost impossible to attain by the methods of butter-making commonly used on the farm.

In Northern Siberia if a young native desires to marry, he goes to the father of the girl of his choice and a price is agreed upon, one-half of which is then paid down. The prospective son-in-law at once takes up his residence with the family of his lady love and resides with them a year. If at the end of a year he still desires to marry the girl, he can pay the other half and they are married on the next visit of the priest. If he does not want to marry he need not, and simply loses the half he paid at the start.

POULTRY AND PETS.

BUFF COCHINS.

This illustration is a very handsome picture of this well-known breed. They are of the largest size, the cocks weighing 12 to 14 lbs. and the hens 9 to 10 lbs. In colour they are either buff or cinnamon and must be uniform in either case. They are prolific winter layers, laying freely when eggs are at the dearest. They are excellent sitters and mothers, the chicks are very hardy and easily reared, and they will withstand severe changes unharmed that will most completely destroy any other breed. The chicks are quick growers, and make excellent broilers when 10 or 12 weeks old. They are quiet and contented in disposition, and are especially adapted for small yards; they cannot fly, and a two foot fence will effectually restrain them from trespassing. They are great favourites where their good qualities are known and appreciated. They possess many merits, and deserve to stand more highly than generally allowed.

BEST FOOD FOR HENS.

Considerable difference should be made in the food of poultry according to their breed. The Brahmas, Cochins and their crosses are quiet lazy sorts, and consequently fatten more easily than such as are more fond of roving around at considerable distances from the house, such as the Leg-horns, Hamburgs, Games, etc. Little corn or Indian meal should be fed to the former, except in the coldest weather, and then we only make it about half their rations. In spring and autumn we give them all they are inclined to eat during the day, a pudding made of one-third Indian meal and two-thirds wheat bran, with a sprinkling of whole oats late in the afternoon on the ground in their yard, or near their house, for them to scratch and pick up just before going to roost. In summer we make the pudding of only one-fourth Indian meal, and three-fourths wheat bran. In this about half a gill of pure strong brine is mixed to each gallon. A little brine is very healthy in the food for poultry, but it must not be taken from the meat barrel. A tablespoonful of sulphur is excellent to mix once a week in the pudding, as this keeps lice out of the hens, and in addition is healthy for them. So is the same quantity of pure wood ashes, or a gill of fine charcoal dust. The hens ought to have a grass plot to run on. If this cannot be had, give them some boiled vegetables or raw cabbage leaves. In summer, grass can be cut for them and put in their yard. Lettuce and spinach are excellent when other green food is not to be had, and we cultivate this in our garden especially for them. For the more active breeds of fowls we give a greater proportion of Indian meal in their pudding. If this can be mixed up with skim milk, it will be all the better for the production of eggs. Whole wheat is also an excellent egg producer.

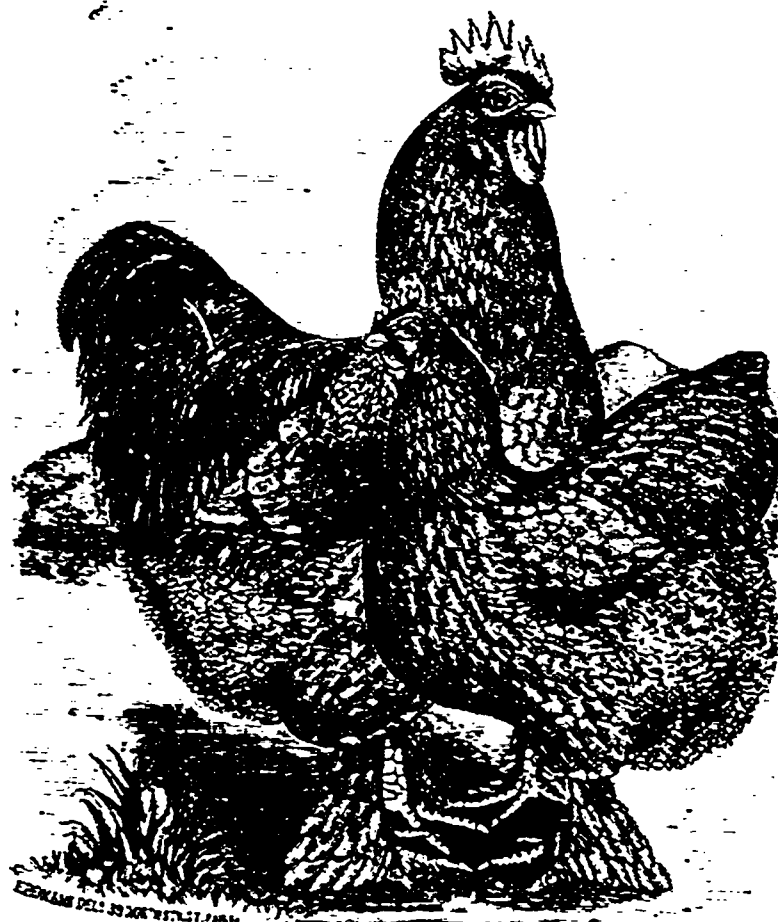
A writer in the *Farming World* claims that the sex of chickens can be controlled by the following methods of breeding: If cockerels are wanted mate a one-year-old cockerel with hens not more than two years old. If pullets are wanted breed a three-year-old cock with one-year-old hens.

EGGS AND HENS.

It must be borne in mind that the most profitable system of keeping fowls involves four things, viz.:—1. Crowding in winter for the sake of warmth. 2. Plenty of room or fewer fowls in summer. 3. Very early hatched pullets for winter layers. 4. Constant attention as to regularity of food, cleanliness, pure water, the dust bath, etc.

People who have hens must be distinguished from those who keep fowls. Most of what is written is intended for the latter class, and these are encouraged to become fanciers—a poor plan, as a rule. The beginner should learn to keep fowls with profit; then he may adopt a breed which he likes and become a fancier, but in nine cases out of ten there will be no profit in it.

Our supply of eggs in winter is very limited, and it may be safely predicted that the demand for fresh eggs will be insatiable for years to come. The people who should raise eggs in winter are those who do not and will not; for there is no duller class of people in the community with



BUFF COCHINS.

reference to matters which require thought and change of plan, or any plan at all, than the farmers—that is, those who have hens.

The difference between an egg laid by a plump, healthy hen, fed with good, fresh food daily, and an egg laid by a thin, poorly fed hen is as great as the difference between good beef and poor. A fowl fed on garbage and weak slops, with very little grain of any kind, may lay eggs, to be sure, but when those eggs are broken to be used for cakes, pies, etc., they will spread in a weak, watery way over your dish, or look a milky white, instead of having a rich, slightly yellow tinge. A "rich egg" retains its shape as far as possible, and yields to the beating of the knife or spoon with more resistance, and gives you the conviction that you are really beating something thicker than water or diluted milk.

A CHEAP POULTRY HOUSE.

A writer in the *Fancier's Gazette* says on this subject:—I have seen a great many plans for chicken houses, most of which were expensive for most people. I have used one of my own make which gives good satisfaction. Select an east or south slope if convenient. Dig a basement seven feet deep, sixteen feet long by twelve feet wide, on the east of which make lath pens, four feet one way by two the other way, which will give you sixteen pens, in which to set your hens. In a basement like this you can set hens very early, and in the summer can hatch to better advantage, as the temperature is more even at all times. One window will furnish all the light the hens will need. If you wish to set more than sixteen hens you can make double tiers of nests, one above the other. By having the coops four feet on each side it leaves a four-foot walk between. The front of the coop should be made of lath, in the shape of sliding doors. I brick up the side walls and put in two or three inches of

tin chips, and cover over the dirt or sand for a floor, board over the top, and cover with tin chips and sand, thus making a rat-proof cellar and one not liable to freeze. On top of this build a chicken house of barn boards with single roof for the roosting purposes. Attach a run fifty feet long, eight feet wide and four feet high. Cover all over with hay or straw, except on the south side, which is made of glass. With such a run the hens will not suffer from the cold, and will lay all winter.

In conclusion, I would advise the keeping of only one breed of fowls. I think the time is not far off when the breeder who sticks to one breed will be the one who will come out ahead, as it is difficult to keep more than one breed at a time without having some accident.

POULTRY NOTES.

One of the chief causes of mortality among chickens is brought about by over-crowding. It is most important that while giving the birds plenty of room on their coops, not more than twenty-five to thirty should be kept together; indeed a less number would be better. No matter how well attended to, and cleanly kept, if large numbers are huddled in one compartment, the birds will from some unknown cause rapidly dwindle away.

An acquaintance of ours, who went rather extensively into poultry raising, complained that he lost so many young birds that the business did not pay; and he was determined to quit. Upon inquiry we proved that although he had built a large and convenient hen house, yet it was so constructed that all the birds, to the number of about three hundred, roosted in one compartment. Acting on our advice, he divided his house into a number of small divisions, and now finds his birds healthy.

Milk, sweet or sour, mixed with a little bran is an excellent food for a change.

See that your poultry have a supply of broken oyster shells, old mortar, or lime to pick among.

Don't allow any bones to lie scattered around your yard; but break them up, and give to your chickens.

BUSINESS ANNOUNCEMENT.

TO CANADIAN FARMER SUBSCRIBERS.

There is a number of our subscribers who are behind in their subscriptions. We beg to intimate to these that such back amounts, whether for a whole year or years or for a part of a year, are due to the old publishers. We will shortly send to each one of our subscribers a statement of the amount due, when they will oblige greatly by remitting if convenient. All who have paid us for the present year or a part of the same will of course receive the paper up to the time of expiration of their subscription from the new publishers. Yours very truly,

W. H. MONTAGUE, Editor.

The Rural Canadian.

TORONTO, MARCH, 1885.

FORESTRY.

As Clerk of Forestry in the Ontario Department of Agriculture, Mr. R. W. Phipps has made a second report on his subject, a copy of which we have before us. It is written in an easy and graceful style, and the matter is as good as the manner. In his first Report, Mr. Phipps dealt largely with Forestry, as pursued in the principal countries of the world, and especially in Europe and Southern Asia. It was a presentation of the literature of the subject, and the writer availed himself freely of the results of other men's studies and experiments. He gave us the best of what was known in the schools of France and Germany, and whoever would know the part which forests fill in the economy of nature could not do better than consult the pages of that Report. The present one deals chiefly with forestry in its application to our own Province, and much of the information has been collected either by correspondence with farmers and others in the various counties and districts, or by personal visits and enquiry. In regard to the latter, there are observations on the manner in which it is found possible to preserve forests, and the benefits to be obtained by doing so. There are also many statements from various parts of Ontario relating to the beneficial effects of planting trees as wind-breaks on farms, and much from personal observation concerning the same subject, with instances in which the best results have been obtained and descriptions of the soils and methods of cultivation used. There is also a good deal of information supplied by practical tree-planters in Ontario and the United States on the best methods of raising trees from seed, transplanting them into nursery-beds, and again to the places for which they are ultimately intended—with details as to soils and kinds of trees adapted to different earths and aspects. A section is devoted to information supplied by manufacturers on the uses of Canadian timber in the work-shops and factories, the kind required for each description of work, and suggestions as to when woods should be cut, how sized, and how seasoned. One manufacturer observes that "all kinds of hardwood are becoming scarce and, in a very few years at the present rate of consumption, will have to be obtained from without the Province." Continuing on this subject, Mr. Phipps says:

"It must be noted that these are not becoming scarce at all so much in consequence of their use by the manufacturer, but as a result of the steady clearing which has for many years been going on throughout Ontario. As in a thousand localities forests have been cleared away, which, if left standing till now, would have sold for ten times the profit of all the crops the land has ever produced; so in many places to-day farmers, in the process of clearing, are burning up timber which would, in a few years, have become very valuable, which is, in fact, valuable now if it could be brought to the localities where needed. Indeed, in some cases, it is valuable where it stands, but its owners are not aware of the demand for it."

As to the best means of preserving a forest, he writes:

"In all efforts, however, made to keep a piece of the original forest standing and in good condition, the prime

necessity is the exclusion of cattle. To give the trees health and vigour, the ground must be the original forest soil, dotted with infant trees just rising from the ground, with taller undergrowth of long and upright saplings, umuluous of being the future tree, with large trees fit to cut, and with younger ones nearly ready to replace them. In such a bush-plot the grass cannot get in and overspread the ground, for it is shaded by the undergrowth. Next, as previously stated, a most important consideration, the young second-growth trees, rising up around the edge of the bush, will never blow down, and will, as they increase in height, keep the wind from all the rest. The whole of the forest trees, too, young and old, grow much more vigorously when the undergrowth and young and springing covering of plants around and among their roots, which is their natural mulching, is not destroyed. A block of forest so treated, and with a little assistance in case of unforeseen accidents, will reproduce itself for ever."

We cannot better conclude this notice of the Report than by quoting the following opinions relating to the practical side of forest preservation:

Mr. Henry Westney, Highland Creek, York, says:—"As far as I have observed, the result of cattle being kept out of the woodland has been a dense growth of young trees of remarkably straight and rapid growth; while, on the other hand, in those pieces of bush to which they are allowed free access, the undergrowth is very scant, small bushy trees, trimmed like a hedge, or broken down and destroyed by them."

Mr. J. A. Ramsden, Sherston, Welland, says:—"I have noticed that where cattle and horses are pastured in the bush, they keep down all the second growth and the trees are rapidly dying off; and I have also noticed that where the woodland is not pastured the trees look much more healthy, and there is almost invariably a thick undergrowth."

Mr. George Sanderson, Colborne, Northumberland, says:—"I have kept cattle out of a small wood lot, and now it is so thick with small young trees that one can hardly get through. There are lots of maples, ironwoods, beeches and basswoods, from six to twelve feet high—just right to set out along the fence. Some are from one to three inches in diameter. I think the large trees are growing better and look more thrifty than they did before I gave up pasturing. I let the cattle run in the wood now after harvest and they do not seem to do any damage. I am sure it will pay to keep the cattle out for a few years at most."

Mr. R. Postans, Oakville, Halton, says:—"I know that cattle will sometimes destroy a great number of young trees; in a dry time when pasture was almost burnt up with drought, I have seen an ox bend down a young sapling over two inches in diameter and twenty feet high, keeping his neck over it till he had broken it down, or holding it down till he had browsed the top."

Mr. David Spence, Whittington, Wellington, says:—"A friend of mine fenced off five acres of bush for the purpose of allowing the second growth every chance to grow; and I assure you it is beautiful to look at—in three years you could not see a man a rod off, it was so high and so thick. There would be no use in keeping cattle out five, six, or even seven years and then letting them in. I have seen cattle in a bush throw their neck over a sapling like a handspike, and would bear it down until they had eaten all the foliage off—then it is sure to die."

Mr. Thomas Shipley, Falkirk, Mid Essex, says:—"When timberland is cut or slashed, and lies in a rough state, the young trees come up rapidly, but before they attain any strength the fallen timber and brush which protected them are either burned, or are so decayed that cattle get in and nearly all are broken down. Some few grow up, but the growth is thin, and they grow bushy, branching out about ten feet from the ground, and become all top and not much trunk. I have about twenty acres like this—the trees are about twenty years of age, thirty feet high and one foot in diameter (elm, oak, beech, ash, basswood); but cattle and grass prevented a thick growth, and they are not, and never will be, anything like the forest primeval. Apart from the planting of forest trees, which can be done, I must say that in my opinion it would be an easy matter to reproduce the forest, simply by protecting it from all manner of invasion."

Mr. John King, Middlemarch, Elgin, says:—"I believe that allowing cattle to run at large in forests is almost certain destruction to anything like a healthy growth of young trees. I know of some few, and but few, who keep the cattle out of the forests, and their woods are so thick with underbrush that it is difficult to walk through them; and as to the majority of forests where cattle are allowed to run, you can ride on horseback through them anywhere."

Mr. A. D. Ferner, Ferris, Wellington says:—"Cattle will destroy every kind of tree they can reach, and seem to delight in the work of destruction."

Mr. Thomas Baird, Bright, Brant, writes:—"Whenever the forest is thinned out the Indian and other grasses get in, and when this is the case the underwood ceases to grow."

Mr. John Bishop, Palmyra, Kent, writes:—"Fence off a piece of woods and it soon starts up as thick as it can grow, but let sheep and cattle run through woods and all undergrowth is cropped off, and grass takes its place, crowding out even the trees that are left, except a few of the hardier kinds."

These remarks are worth heeding, and indeed it is high time that greater interest was taken in the whole subject.

THE PROVINCIAL AGRICULTURAL ASSOCIATION.

What are we to do with the Provincial Exhibition? Shall it be continued, doing the show business for an indefinite time in the future just as it has been doing for the past thirty-eight or forty years? Or is its work finished, and should the efforts of the Association which manages it be directed to other objects of greater utility to the agricultural interests of the Province?

There can be no question that the exhibition has been productive of a large measure of good in past years; but there is a growing impression that it has already accomplished all, or almost all, that can be expected of it. Public interest in it has perceptibly fallen off during the last four or five years. In fact, it has been losing ground ever since the inception of the large central fairs—such as the Industrial in this city, the Western at London, the Central at Hamilton, and two or three others in different parts of the Province. These institutions have been managed with great spirit, and considering that they have been carried on without Government assistance of any kind—successful as great exhibitions and successful financially—it is not to be wondered at that opposition to the Provincial institution with its large Government grant should become more emphasized as often as comparison of results is made.

In the Local Legislative assembly this session a very interesting discussion took place on this subject, on a motion offered by Mr. Dryden. The western members who spoke were almost unanimously of opinion that the time for discontinuing the grant for an exhibition purpose had arrived, but they were at the same time in favour of continuing the grant of \$10,000 to the Association for the promotion of other objects in connection with agriculture. A few eastern members, on the other hand, were of opinion that a career of usefulness was still open to the exhibition in this part of the country, but even among these members it was not affirmed that the money might not be put to some other useful purpose.

The Commissioner of Agriculture, while speaking cautiously, seemed to be of the opinion that the time was almost ripe for a change, and he took occasion to point out that even now one-half of the Government grant is paid out for objects apart from the exhibition. For instance, there are prizes offered for the best farms; prizes for essays on agricultural topics; prizes for proficiency in the study of agricultural subjects by pupils of the public schools, etc.

These directions are all of a practical and important character, and the Association may, with great profit and advantage to the country, go on extending them. But to introduce new features requires intelligence and careful consideration, and may necessitate more frequent meetings of the Board and more thorough discussion of subjects than have obtained in recent years. Of one thing the members of the Association may rest assured—they must be earnest, energetic, and practical if they are to continue to exist. There is too much discussion going on among farmers now-a-days, especially in the Grange organization, to permit of any so-called Provincial Agricultural Association to slumber or sleep with impunity.

THE LATE PROF. BUCKLAND.

One of the best known men to the farmers of Ontario, and especially all farmers who took an interest in Agricultural Societies, was the late Prof. Buckland. He came to this country from England nearly forty years ago, and was one of the earliest promoters of the Provincial Exhibition. About thirty-five years ago he was ap-

pointed Professor of Agriculture in the University of Toronto, and for some time he held the position of Secretary of the Agriculture and Arts Association. He took a deep interest in the agricultural interests of the Province, and in connection with his work as Professor in the College and as Secretary of the Association he visited almost all the settled portions of the Province with the object of thoroughly acquainting himself with their condition and wants. Soon after Confederation he was appointed Assistant-Commissioner of Agriculture, an office which he held until failing health compelled a relinquishment of its active duties a few months ago. In this office he was, while health and strength permitted, an enthusiast in his devotion to agricultural affairs, and in the earlier and more trying days of the Agricultural College especially he performed yeoman's service. Prof. Buckland was not only an ardent friend of the farmers of this Province, he was a man of wide range of information, and a fine specimen of the English gentleman. His death occurred very suddenly on the night of the 27th February, following a day of active work in his office. The farmers of Ontario never had a better friend than Prof. Buckland.

WALKS AND TALKS AMONG THE FARMERS.—NO. X.

FOR THE RURAL CANADIAN.

Said a farmer's wife to me lately.—“You have written some good things about over-worked men; couldn't you do as much for the women?—their case is worse than that of the men.”

“Man's work is from sun to sun,
But woman's work is never done.”

I said that I could, and promised that I would, but have since almost regretted the promise, because the subject is one of considerable delicacy and difficulty in some aspects of it. But a promise, especially when made to a lady, is a sacred thing, so I must do my best to fulfil it.

A man's fitness to do manual labour on a farm is very much a matter of habit and training. A youth brought up in town until, say the age of eighteen, having done little else than attend school and amuse himself with youthful sports, requires a considerable time to become accustomed to farm work. At first he soon tires, his hands blister, his back aches, and he is quickly “used up.” Gradually, however, his muscles acquire toughness, his back stiffens, and at length, he can stand up manfully to a good long day's work. Woman's ability to do the indoor work of a farm house is governed by the same laws, and unless there have been some preliminary training, it will be well nigh impossible for her to struggle through the home duties that devolve upon her in assuming the position of a farmer's wife. Not only do these remarks apply to women who have been brought up in town, but to many who have always lived in the country, whose mothers have constantly carried “the heavy end of the log,” so that they have never known the full brunt of work until they have come to set up house for themselves. Unused to carry so heavy a load, courage, and sometimes health, fails under it. A youth from town, who finds farm work too severe for his strength, can return whence he came and look for lighter employment, but a young woman who has married a farmer cannot so easily get off the tread-mill. What is to be done if her strength proves unequal to the task? A hard question truly! Sometimes it is answered by a proud and determined spirit that will not give up until compelled to do so. A fit of sickness—perhaps a premature grave—is the result. In other cases, temporary help is got. After a partial or entire rest, the load is again taken on insufficient

shoulders. Again it is found to be crushing, and again help is resorted to. So on indefinitely, through a life hardly worth the living, so little is there of real comfort in it.

SUPPOSE a woman fitted by constitutional vigour and past habits to do the work of a farm house, she, like her husband, is exposed to the temptation of over work. Anxious to get on, there is danger of her attempting too much. Certain duties *must* be performed, and many an ambitious woman adds to these necessary toils, others less necessary, which, however, she is not willing to leave undone, if she can possibly muster strength to overtake them. Thus there is a kind of self-imposed slavery, which grows no lighter as the years roll on, but is very apt to grow heavier.

WITHOUT attempting to discuss the question whether men or women have the hardest lot on a farm, it is very desirable to ameliorate the condition of both. It is not well that life should be a constant drudgery, with no rest nor pleasure in it. There ought to be time and opportunity to improve and store the mind. An occasional holiday, or some recreation now and then, should vary the dull monotony of toil. If these things are to be provided for in the case of women, either their duties must be lightened, or they must have assistance in the performance of them. Something may perhaps be done in both directions, though it will probably be found easier to diminish the amount of work, than to obtain help in doing it.

“OUGHT women to be relieved from the task of milking?” If there is a hired man on the farm and no hired girl in the house, it would seem only fair that the two men should, between them, manage to milk the cows. When there is no hired help of any kind on the place, the case is different, and then, certainly, there should be as little milking as possible to do. Other stock rather than milch cows should be kept under such circumstances, even if not thought quite so profitable.

THE care of milk is a large item in woman's work on the farm, and it should be lightened in every possible way. It is one of the arguments in favour of cheese factories, and a good one, that it relieves the female members of the farmer's family of considerable toil. For a similar reason it is desirable that butter factories should increase and multiply faster than they do. If the butter must be churned at home, a dog-power, or some other contrivance, should be found to save the women the wearisome and exhausting task which they so unanimously dislike and dread. If a dog must be kept about the premises, let him be heavy enough to turn a dog-power. But my advice would be to shoot the dog, and use a sheep instead. With a little training, a sheep may be broken in to do the job very well.

THE family washing is another serious item in woman's work on the farm. I know of no better way of lightening it than by the use of a washing-machine. It is thought by many that there are no washing-machines in the market that are worth their cost. This, however, is a great mistake. It is no doubt true of some of these machines that they are worthless, but it certainly is not true of all of them. We have one in use that greatly lightens the labours of washing day, and is considered by those best able to judge to have paid for its cost many times over in the past, as it seems likely to do also in the future.

W. F. O.

ONTARIO VETERINARY COLLEGE.

At a recent meeting of the Veterinary Medical Society connected with the College, after the reading of essays and a debate, Professor Smith was asked to leave the chair, when Mr. George McGillivray, in behalf of the class, presented the popular Professor with a four feet square picture of the class, and read the following address:—

“Since the commencement of our college course the greatest harmony has existed among us as students. Each of us being desirous to obtain some memento of our college days, decided that a photo of the class would be the most appropriate souvenir, and as a result obtained this picture, which we decided to present you as an appreciation of the hearty and sincere interest you take in our welfare, and the many kindnesses extended to us during our college course. We take great pleasure in presenting you this picture on behalf of the students whose photos adorn this board, hoping that there is no shadow on it the original of which shall ever prove otherwise than a credit to the Ontario Veterinary College, of which you are the worthy Principal. Signed on behalf of the senior class, Geo. McGillivray, D. E. McLean, Harry Platt, committee.” The Professor replied in a suitable manner. The other members of the class represented in the group are as follows:—W. D. Paxton, H. Fox, F. W. O'Brien, J. B. Lindsay, H. Delaverne, J. Lawson, J. G. Yost, J. G. Campbell, W. Johnston, T. S. Butler, R. McFarren, R. B. Hammond, G. Standish, R. Grant, T. W. Scott, A. Curtis, J. Banting, R. J. Michner, Geo. Waddle, S. C. Quin, W. Wilson, W. S. Shumer, A. McDonald, T. E. Jones, A. G. Wynde, W. S. Tomlinson, O. D. Franks, W. H. Harbaugh, Fred Hall, G. H. Farnsworth, E. S. Walmer, A. F. McMaster, W. McKinney, W. J. Wilson, J. B. White, N. Wilson, A. H. Moody, R. J. Quinn, W. R. Shannon, T. G. Duff, F. Bolster, G. D. Miller, J. J. Irwin, J. Cullin, P. K. Dreibill, L. D. Williams, W. F. Perry, F. T. McMahon, C. J. Sterner, H. E. Carpenter, J. A. Gourlie, A. L. Hunter, W. M. Stevens, J. A. Lee, J. T. Natras, J. D. Milne, J. K. Seltzer, J. Miller, J. A. McDonald, J. Ireland, A. M. Treble, G. N. Dawson, W. J. Oliver, W. C. Mitchell, J. P. Embury, C. E. Munn, F. Matthews, A. G. McLean, W. A. Kumpf, J. H. Cunningham, C. H. Pierce, C. Christman, E. D. Hayden, M. C. Crawford, C. Johnston, T. A. Milne, G. E. Kelly, W. D. Gross, R. F. Cowper, A. E. Gable, W. Green, C. Burger, J. R. Sitterly, A. J. Mitchell, W. Johnston, J. A. McTaggart.

The Ontario Veterinary College deservedly occupies a high position among the educational institutions of the country; and this is very largely due to the able and unceasing efforts of Professor Smith, who so well merits the esteem and confidence of the young gentlemen of his class.

THE attention of our readers is respectfully called to the advertisement, in another column, of D. M. Ferry & Co., Detroit, Mich., the celebrated seedsmen. They do the largest business in their line in the United States; raise the bulk of their seed on their own farms by the most approved methods, and have obtained a world-wide reputation for the quality and variety of the seed they put upon the market, and their integrity in filling all orders entrusted to them. Their beautiful Seed Annual for 1885, sent free to all who apply for it, will be found of practical value to all who desire to purchase seeds true to name.

“PAPA, did mamma say yes to you right off when you asked her to marry you?” “Certainly she did.” “Why don't she say yes now just as quick when you ask her to do things?” “Mamma's hearing is not as good, now, darling—that's all.”

“I HEAR you are highly satisfied with your new minister, Brown?” “Satisfied is a tame word to express our opinion of him. We are delighted with him.” “He is very eloquent, I understand?” “Eloquent! Why, sir, when he is preaching he affects the congregation so powerfully that there is hardly any interest taken in the flirtations of the choir.”

THE American Rural Home says:—“If Germany cuts off the importation of American wheat and rye, and England gets her ‘corn’ from India, two valuable markets will be cut off from us. Then we must raise less or eat more, or perhaps Providence will take care of the matter by conveniently throwing in some bad seasons. But how much of a help is a disaster anyway? Wouldn't a little prudence and a greater variety of crops settle the question better?”

Bees and Honey.



OFFICERS OF ONTARIO BEE-KEEPERS' ASSOCIATION, 1884-5.

President, Dr. Thom, Streetville; 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.

We beg to acknowledge the receipt from Mr. Jacob Spence, the efficient Secretary of the Ontario Bee-Keepers' Association, of a nice present of honey—the quality of which was excellent, nice flavoured and—sweet! Many thanks.

It is with no little pleasure we welcome new contributors to the Bees and Honey Department this month. Messrs. Grainger and Dunn promise to write from time to time; Mr. Cornell, of Lindsay, will contribute regularly. Other gentlemen will furnish papers with more or less regularity.

REPORTS SOLICITED.

After the extreme cold days, serious fears are entertained, especially for the bees wintered on summer stands; so that it will be very interesting to learn of the safety of many; and, at the same time, the particular mode of protection that has been found successful. It will also be encouraging to have a few words of commendation from more of those who appreciate THE RURAL CANADIAN. We hope all members will feel so satisfied, and take opportunity of making known the favourable arrangements, giving the privilege of belonging to the O.B.K.A.; besides good value for the fee. By a largely increased membership, mutual pleasure and benefit will result.

NATURE OF HONEY.

Honey is obtained by bees from blossoms and flowers; it is solely a vegetable production, not nectar manufactured by the bees, but collected and secreted according to the laws of nature's laboratory. It is clear, translucent, slightly amber-coloured, sticky, sweet and aromatic. Its peculiar flavour is so decided that it can thereby readily be known from all other saccharine substances.

Honey produced in northern climates becomes granulated more readily than that obtained from southern countries; and is generally of superior quality, where flowers are abundant and varied. It has been found that several of the highly prized kinds of fruit can be grown to much greater perfection near to the northern limit where the heat is just sufficient to ripen them. The same may, no doubt, be true of honey. The bloom which decidedly predominates gives character to the honey collected. The nature also of the soil, climate, and even prevalent winds have their influence on both quality and quantity produced. Many trees and flowers yield nectar which if not gathered is very soon evaporated and lost. In Canada the apple tree and raspberry yield early a flow of excellent quality. Plumb, cherry and locust trees are great producers. Basswood bloom is a chief dependence;

white clover of special value, and Canada thistle, particularly fine—each having its own distinctive characteristics. Nearly all flowers contribute more or less to the general collection.

This country is provided with honey sources as varied and plentiful as can be found anywhere on earth, and late improvements in methods of bee-management give such increased production that what was heretofore regarded only as a luxury to be enjoyed by a few is now taking its place among the staple articles of general use. The virtues and value of this best of sweets prepared by the Creator as an article of food are becoming better known abroad. Its superior excellence will ensure for it a wider appreciation and a growing demand.

HONEY AND HEALTH.

The comparative value of various kinds of food is to be estimated not only by the nutritive properties contained in each, but also by the proper proportions of the several qualities adapted to promote health and strength. Most competent authorities are pretty generally agreed that a well-assorted and varied diet is better adapted to promote the ends for which we take food than a narrower selection of even those classed as the better kinds. There are, however, some single articles of food which combine a larger variety of the sundry properties of several others, and, of these chiefly, the two which have for ages been mentioned connectedly are "milk and honey." Milk appears to contain a concentrated, well-proportioned mixture of all needful food elements, compounded and combined in the best form to supply, during tender age, the variety which afterwards is to be supplied by a more comprehensive bill of fare; honey, too, being the main food of the bee, gathered from various flowers, combines the several properties needful for sustaining life, warmth, and health. This one article appears to answer all the purposes of ample variety in sustaining the tone of well-balanced vitality and counteracting tendencies to organic irregularities. Honey must be regarded as particularly promotive of good health.

"THE LANGSTROTH BEE SPACES" "S. CONTINUOUS PASSAGE WAYS" FOR COMB HONEY.

BY S. CORNEIL, LINDSAY.

Bee-keepers should now be thinking of getting ready their hives and surplus cases for next season, and as there has been a good deal said in the newspapers about Dr. Tinker's hive with its continuous passage-ways, and Mr. Heddon's surplus case, with its two bee spaces to be crossed by the bees before they can reach the sections, the results of a trial of those hives in adjacent apiaries during the past season, may be interesting.

My neighbour, Mr. T. J. Webster, and I had eighty stocks each, in the same kind of hive, the Closed-end Quinby, at the beginning of last honey season. Mr. Webster ran fifty-stocks and I ran fifty-nine for extracted honey, both using our old hives for that purpose. From my fifty-nine stocks I obtained an average of eighty-five pounds each, and from his fifty stocks Mr. Webster had an average of one hundred and twenty pounds each, confirming what we had known for some years that his field was better than mine. For comb honey Mr. Webster used the Heddon hive and case, made from a sample hive ordered from Mr. Heddon for the purpose. I got a sample hive from Dr. Tinker and adapted his case to my own frames, which are 10 x 16 in inside measure. My

twenty one stocks averaged twenty pounds each, while Mr. Webster's thirty stocks averaged hardly four pounds each. Our increase was practically the same, each having 154 stocks ready for winter quarters. I fed 1,600 pounds of sugar, and Mr. Webster fed nearly 1,500 of honey for winter stores. As to experience, Mr. Webster raised and sold comb honey for some years before I commenced keeping bees. Both yards are well stocked with the best strains of Italian bees obtained from W. W. Caroy & Son, and other noted breeders; and just here I think is the explanation of Mr. Webster's partial failure in raising comb honey in a comparatively poor season. It is generally admitted that to be successful with the Heddon case we must either have black bees or hybrids, because the Italians are slow to cross the two empty spaces between the brood frames and the sections. Mr. Webster's bees were too highly bred for the Heddon case, while my Italians, having continuous passage ways from their brood nest to the sections, had no such objections to going above with their surplus honey. This is the only explanation I know of for the difference in our results in raising comb honey.

After using Dr. Tinker's surplus case one season, I am free to say I like it. I think I can work as fast with it as with any other style of case, at the same time killing as few bees; and I never used a "wedge," "chisel," or "brush-broom," nor did I ever need them.

REGULATING THE TEMPERATURE OF BEE CELLARS.

BY S. CORNEIL, LINDSAY.

The temperature of my cellar has been six or eight degrees lower this winter than usual. I think the ground must be frozen to an unusual depth, because I find the air comes in through my sub-earth pipes at about thirty-six degrees, while during the coldest snaps last winter it did not fall below thirty-eight degrees. Finding that for some weeks the thermometer in the cellar stood at from thirty-three to thirty-seven degrees, but more frequently near the thirty-three degrees, I began to devise plans for warming the cellar artificially. The plan I finally adopted was to set a Jones' uncapping can in the cellar and fill it with hot water. To fill it without opening the cellar I ran a two inch tin tube down through the kitchen floor into the can, which is closely covered, and to empty it again in order to furnish a fresh supply of hot water, I use a tin pump such as is used for drawing off liquors from barrels, etc. The stalk of this pump, being one inch and a-half in diameter, is readily run down into the can through the tube in the floor. To draw off a couple of wash-boilerfuls of water is only the work of a few minutes, and the water can be heated and poured back into the can, when the cook stove is being used for other purposes, and in this way little extra fuel is required.

The increase of temperature thus obtained will vary in different cellars. My cellar is a very poor one, the walls being altogether too light to maintain an even temperature. I find that when the can is filled with water at one hundred and seventy-five degrees, it will cool down to one hundred degrees in twenty-four hours, the temperature outside being slightly below zero. In a better cellar it is probable that one wash-boilerful of boiling water per day would keep up an even temperature of forty degrees or perhaps higher. On account of its high specific heat water is the best substance available for warming a cellar, short of using a stove or some such heater. A block of iron, for instance, of the same weight as the can of water, and of the same

temperature, would give out nine times less heat on cooling through the same number of degrees. Sudden changes of temperature are to be avoided and on this account the bright metallic surface of the can is just what is required, because the water will cool more slowly on that account.

Before setting our bees out in spring there are always two or three weeks during which the cellar is too warm. To cool the cellar during this period I purpose reducing the temperature of the water in the can to thirty-two degrees by using ice. I shall then have to coat the surface of the can so as to make it a good absorbent of heat, the bright tin surface being a good reflector but a very bad absorbent.

Those who have no bees, but who may wish to protect their vegetables in the cellar during a cold snap, may take a hint. No charge.

I am very much pleased to know that, at last, the members of the Ontario Bee Keeper's Association will have no further reason to complain on account of their paper. In THE RURAL CANADIAN we have a journal filling a place in regard to agricultural pursuits in Canada, similar to that occupied by *The American Agriculturist* in the United States. The latter journal has always kept up an instructive bee department and has done good work in disseminating information regarding the management of bees. The space now allotted to the subject in THE RURAL CANADIAN is many times greater than that in the *Agriculturist*. I have every confidence that the enterprising publisher will see to it that this, as well as the other departments of the paper, shall be well sustained.

ROCKYMOUNTAIN BEE PLANT, "CLEOME INTEGRIFOLIA.

BY J. F. DUNN, RIDGEWAY.

I would like to ask our bee-keeping friends of THE RURAL CANADIAN, if they have had any experience with the above named honey plant? Last spring I procured of a Chicago firm a small quantity of this seed. Of course, I did not expect to receive any pecuniary benefit, as it was only an experiment, involving the possibility of more extensive planting in the future. I gave it the richest spot in my garden (within a few yards of my bees), a great deal of care and attention, and then watched to see it "just alive with bees all through the long fall," as Prof. Cook says of it in his excellent Manual of the Apiary. Well, it is certainly a beautiful plant, grows about six feet high with perhaps two dozen clusters of brilliant flowers—with, however, a very disagreeable perfume; and from my rather limited experience I am just about ready to call it a *first class fraud*. While it literally swarmed with wasps, yellow-jackets, and other "unclean birds" of the genus *hymenoptera*, I saw only two bees on it the entire season; while a large bed of mammoth mignonette was fairly noisy with them from morning till night. I should very much like to know whether any of our RURAL CANADIAN readers have been more fortunate in their observations than I, as I certainly expected a different result from all that I had read of it. The past season has not been a very profitable one with many bee-keepers in this locality. The spring was so cold and backward that brood-rearing did not commence soon enough to take advantage of the excellent flow of white clover honey we had in June; then basswood yielded sparingly, golden rod and fall flowers did better. By giving them every advantage, plenty of freedom, keeping them at work, and not allowing any loafing, we secured a good

yield, eighty-six pounds of comb honey per colony (spring count), nearly all in one pound sections. And now let me in conclusion congratulate the publisher of THE RURAL CANADIAN upon the Apiary department in the February number of that paper. Very good, indeed! I think we are going to have a good bee paper, but, to make it of local interest and at the same time the most profitable, let us hear from our Canadian bee-keepers. We have right here in Canada, many who could make this Apiary department very interesting, just as much so as any of our American cousins do their bee journals. Although my experience has not been as extensive as that of many of your readers, I keep a limited number of colonies, work them for all they are worth, make them pay, and will be pleased to contribute my "mite." In future, however, I will keep in mind the editor's advice to his reporter: "Be brief, evermore be brief."

BEE BE-ING BUSY.

A GOOD EXAMPLE.

In the *American Bee Journal* of 17th January, 1888, appeared a little poetic piece which has been mentioned as worthy of reproduction. Here it is, with some additional stanzas:

I love to see the active bee,
I love to watch the hive;
Though sun is hot, it lingers not,
But seems the more alive.

From sundry lands, of various "bands,"
To instinct steady, true,
Slight varied taste, or odds of haste,
Keeping one end in view.

'Mid summer heat, the nectar sweet,
Still gathering while it may,
In tiny drops, nor ever stops
To dally time in play.

Persistent, still bent to fulfil
The end for which it lives;
To seek and find, and leave behind,
It gathers, also gives.

With right good-will and wondrous skill,
It doth to work attend;
Each little cell is shaped so well,
That none its work could mend.

I hear it come. I love its hum,
Flying from flower to flower;
While to its store a little more
Adding from hour to hour.

Work so immense, and toil intense,
Our admiration claims:
Rushing away the livelong day,
High objects and pure aims.

Example bright its happy flight,
Presents to all around;
This lesson good, if understood,
Is in its habits found.

Just so should I myself employ,
My proper work to mind;
Look for some sweet in all I meet,
And store up all I find.

Then, too, not all to self to fall,
What I store up with care;
The common good so understood,
But gathering to share.

Our powers employ to heighten joy,
Augment the sweet and bright;
Aiding to health, adding to wealth,
And ministering delight.

Toronto.

—S.

ROOM FOR MANY MORE.

Mr. Spencer, Sec. O.B.K.A.:

DEAR SIR,—Enclosed you will find \$2.00 for membership fees—one for myself and the other for Geo. E. Roblin, Rednersville. We are very much pleased with THE RURAL CANADIAN and

getting it regularly. I have 195, and Mr. Roblin has thirty-seven colonies. Hoping to hear from you in the future.

Your friend,
Ameliasburg, 13th Feb., 1885. W. G. STAFFORD.

[Will Friend Stafford kindly report by-and-bye how the 195 will have wintered, etc?]

Editor Rural Canadian:

SIR,—The second copy of THE RURAL came duly to hand with its usual welcome department on our favourite pursuit—bee-keeping.

THE RURAL is an old visitor at our house and has always been most welcome; but, since it became the organ of our society, we prize it more than ever.

Bee-keepers naturally look for a good deal of bee talk in the paper of their choice, and the bee department will generally be the most interesting to them, if it contain anything at all good; but I am sure bee-keepers, as well as other people of different pursuits, cannot fail to be interested in several of the other departments of THE RURAL.

Take for instance the "Rural Notes." What bee-keeper can read those items under that heading without being benefited by the valuable and interesting information contained therein? I consider the hints I got from them on manures alone worth the price of the paper. Next take "Horses and Cattle," and "Garden and Orchard." Both of those departments are brimful of valuable information for everybody with enough ground for a small garden. I do not know why a bee-keeper should not know the very best way to keep his horse or his cow, as well as those who make such things a speciality. I have one fault to find with the "Home Circle": the stories are excellent in moral tone, they are all that could be desired, and the other articles are choice and well selected; but with its many perfections this department has the fault of being too short. I would like about four pages at least. As a bee-keeper I shall look with no small amount of interest to the bee department. We want better articles, and more of them, from our bee-keepers than we have had in the *Canadian Farmer*. Somehow, the articles were not so interesting or instructive as they ought to have been. There was not that interest taken in the bee department that is necessary to make it successful. Why cannot we bee-keepers make our part of the paper as good as the best. Judging from the way people ask questions at the exhibitions, one would suppose that people were eager to know all about bees, but some way they are very slow at answering questions through the bee paper of Ontario. It is true we often see very good articles from Canadian bee-keepers in American journals, but we have not had many in our own organs. Let us make our own Canadian bee paper second to none.

I think that a large number of those interested in bee-keeping in Canada, do not know enough about bees to understand many of the articles written by our professional bee-keepers. They want the A B C of bee culture. It is surprising how many bee-keepers one will meet at the exhibitions who do not know what comb foundation is for.

Well, we bee-keepers are going to get a good big dollar's worth in THE RURAL anyway, so I guess we will not complain if the bee department is not just exactly what we think it ought to be. Let us see what we can do to make it so interesting that every reader of THE RURAL will prize the bee department.

What is the best plan for a person to control swarming who is working a long distance from home and can only work in the morning and evening?
E. GRANGER.

Deer Park, Feb. 12, 1883.

[Thanks for kind words and good intentions.—EDITOR.]

The Grange Record.

DOMINION GRANGE OFFICERS.

Jabel Robinson (re-elected) Middlemarch, M.; R. W. McDonald, Pictou, N. S. O.; R. J. Doyle, Owen Sound, L.; Henry Glendinning, Manilla, Ont., Secretary; J. P. Bull, Downfield, Ont., Treasurer; Jesse Trull, Oshawa, C.; T. S. McLeod, Dalston, Ont., S.; Charles Moffat, Edgchill, Ont., A. S.; Wm. Brock, Adelaide, G. K.; Mrs. VanCamp, Bowmanville, Ceres; Mrs. R. J. Doyle, Owen Sound, P.; Mrs. Moffat, Edgchill, F.; Mrs. McDonald, Pictou, N. S., L. A. S.

EXECUTIVE COMMITTEE—Robert Currie, Wingham, Ont.; A. Gifford, Meaford, Ont.

AUDITORS.—R. Wilkie, Blenheim, Ont.; L. VanCamp, Bowmanville, Ont.

OFFICERS OF PROV. GRANGE.

ONTARIO.

Alex Servos, Master, Niagara; A. Gifford, Secretary, Meaford.

NOVA SCOTIA.

Master, A. B. Black, Amherst, N. S.; Secretary, A. McQueen, Point de Bute, N. B.

EXECUTIVE COMMITTEE—Erwin S. Creed, Newport, and W. F. George, Sackville, N. B.

NORTHUMBERLAND AND DURHAM DIVISION GRANGE.

Pursuant to the call of the W. M., Northumberland and Durham Division Grange, No. 14, met in the County Council Chamber, Cobourg, January 13, 1885, at 2 p.m., W. M. in the chair.

The roll of officers being called, the following responded to their names—Levi VanCamp, Master; Ira Brisbin, Overseer; J. E. Gould, Secretary; B. J. Rogers, Treasurer; Mrs. L. VanCamp, Lecturer; Thos. Johnston, Chaplain; Mrs. J. Trull, Steward; Mrs. J. Garbutt, Assistant Steward; Platt Hinman, Gate Keeper; Mrs. S. Parsons, Pomona.

In the absence of Mrs. H. Davidson and Mrs. J. B. Moore, Mrs. B. J. Rogers was appointed Flora, and Mrs. Collins, Lady Assistant Steward.

The W.M. then opened the Grange in due form. Minutes of last annual meeting were read and confirmed.

The following brethren were appointed a Committee on Credentials, viz:—N. Peters, W. T. Wiggins, and D. Kennedy.

REPORT OF COMMITTEE ON CREDENTIALS, AS FOLLOWS:

NAME OF GRANGE.	No.	W.M.	DELEGATES
Roseneath,	590	Wm. Brisbin,	A. Blodget & wife, & Mrs. W. Brisbin.
Hastings,	620		James Moore.
Northumberland,	350	J. F. Mallory,	M. Winter and Clark Mallory.
Millbrook,	483	T. McCamus,	J. Brock and wife, and Thos. Medd.
Morning Star,	520	T. Johnston,	
Perrytown,	324	Jas. Dunbar,	N. Peters and wife, and S. Cauldwell.
Oak Hills,	616	E. J. Honey,	Wm Bonney and John Miller.
Orono,	226	Thos. Gibson,	Ezra Hall.
Balsam Grove,	627	D. Kennedy,	
Warkworth,	516	T. B. Carlow,	W. T. Wiggins & G. S. Aylesworth.
Darlington Union	30		L. VanCamp & wife, J. Worden & J. Trull and wife.
Peterboro'	561	H. Davidson,	James Stodard.
Pickwick,	695	Wm. Preston,	J. Garbutt & wife.
Plainville,	601	Irwin Rosevear,	Jas. E. Cullen & A. J. Wright.
Fenella,	482		Wm. Bowman, Joseph Cole.
Baltimore.	341	Ira Brisbin.	S. Parsons & wife.
Oshawa,	199	B. J. Rogers,	H. Lapp and Mrs. Ira Brisbin.
Eathon,	648	J. J. Brealey,	J. E. Gould, D. Lick and Mrs. B. J. Rogers.
South Monaghan	619		Angus Davidson & Wm Swinton.
Frank Hill,	606	(paid in full)	Joseph Wood.
Bailieboro,	861	(paid in full)	No Delegates.

ADDITIONAL.

Havelock, 674 Received since annual meeting.
Pine Hill, 562 " " " " " "

Bro. S. Parsons, J. Trull and Thos. Johnston were appointed a committee to appoint Standing Committees, as follows:

COMMITTEE ON MILEAGE.—Bro. Winters, McCamus and Worden.

ON EDUCATION:—Bro. Wiggins, Wm. Peters and Wright.

ON PRINTING:—Bro. Gould, Rogers and Lick.

ON SOCIABILITY:—Bro. J. F. Mallory, Sisters Garbutt, VanCamp, Peters, Brock, Parsons and Brisbin.

GOOD OF THE ORDER:—Bro. D. Lick, H. Lapp, E. Hall, Wm. Brisbin, E. J. Honey, H. Davidson, A. Blodget and S. Cauldwell.

ON INSURANCE:—D. Kennedy, J. Trull, Jas. Brock, Jas. Dunbar, S. Parsons.

ON LEGISLATION.—Bro. L. VanCamp, Thos. Johnston, J. Trull, Ira Brisbin, Thos. Wedd, and S. Parsons.

ON HOUSE AND HOME:—Bro. N. Peters, Sisters Rogers, Trull, Brisbin and Blodget.

ON BEST METHOD OF APPLYING MANURES AND RESTORING WORN OUT SOILS.—Bro. Carlow, Gibson, Rosevear, Aylesworth, Miller, Preston, Garbutt, Worden, B. Cole and C. Mallory.

ON GRANGE SUPPLY CO.—Bro. L. VanCamp, W. Brisbin and Hugh Davidson.

On motion, an intermission of fifteen minutes was allowed.

On motion of Bro. J. F. Mallory, Bro. C. Mallory was appointed Delegate instead of Bro. —, not being able to attend.

Moved by Bro. T. B. Carlow, seconded by Bro. S. Cauldwell, that we elect our officers and instal them this evening. Carried.

On motion, it was carried that we adjourn to meet at seven o'clock.

EVENING SESSION.

At 7.15 p.m., the Grange resumed business, W. M. in the chair, and other officers in their respective places.

The following were appointed scrutineers, viz:—Bro. H. Davidson, S. Parsons and J. F. Mallory.

The following officers were balloted for and declared elected for the ensuing year, viz:—

W.M., Wm. Brisbin, Roseneath; W. O., N. Peters, Canton; W. Sec., J. E. Gould, Oshawa; W. Treas., B. J. Rogers, Oshawa; W. L., T. B. Barlow, Warkworth; W. S., H. Davidson, Peterboro'; A. S., E. J. Honey, Warkworth; W. Chap., L. VanCamp, Bowmanville; G. K., P. Hinman, Grafton; Ceres, Sister J. Trull, Oshawa; Pomona, Sister Rogers, Oshawa; Flora, Sister L. VanCamp, Bowmanville; L. A. S., Sister I. Brisbin, Baltimore.

Executive Committee—John Garbutt, Peterboro'; J. J. Brealey, Peterboro'; P. Hinman, Grafton; Ira Brisbin, Baltimore; Levi VanCamp, Bowmanville; and S. Cauldwell, Perrytown.

Auditors—W. T. Wiggins and J. F. Mallory.

Delegates to the Provincial Grange—L. VanCamp, J. E. Gould, H. Davidson and S. Parsons.

By request, Bro. D. Kennedy installed the officers.

It was moved and carried that we adjourn, to meet to-morrow at 9 a.m.

WEDNESDAY MORNING, 9 A. M.—SECOND DAY.

W.M. Bro. Wm. Brisbin in the chair. Grange opened in due form and resumed business.

As Bro. E. J. Honey's name as Assistant Steward was not called last evening with the other officers, on motion, said Brother was obligated.

REPORT OF COMMITTEE ON SOCIABILITY

To the officers and members of Northumberland and Durham Division Grange:

When we, your Committee, consider the composition of the Grange Organization, we do not wonder that the social element is the very life and cement of the Order. While familiarity begets

contempt, sociability is calculated to elevate and enable us to make better partners, members of society, and also members of the church. Society is the very foundation of all our happiness, and your Committee would strongly recommend every member of the Order to cultivate this heaven-born principle in future.

All of which is respectfully submitted.

BRO. J. F. MALLORY; SISTERS L. VANCAMP, PETERS, GARBUTT, BROCK, PARSONS, BRISBIN.

REPORT OF COMMITTEE ON EDUCATION.

Worthy Master and Patrons:

We, the Committee on Education, beg leave to report that, as far as the system is pursued in Ontario, we consider it very efficient, nevertheless we think more especial attention should be paid to the commoner branches of education, such as reading, writing, and simple arithmetic, particularly in the rural districts. We understand that an agitation is on foot for the purpose of doing away with the local school boards, as they are now constituted, and making them into township boards, under the supervision of six trustees, who are elected by the ratepayers of said township. We, your Committee, think it would not be advisable to alter the present law, as under the present system we think the schools are well and efficiently managed; it would also entail considerable expense without any corresponding benefit.

We are also of the opinion that teachers' certificates should be granted according to their ability to teach, i.e., that they should be obliged to take a certain standard of proficiency in education before being allowed to teach at all, and that then their certificates should be graded according to their ability to teach, as it is well known a teacher may have a first-rate education and yet may not be possessed with the ability to impart that education to others.

W. T. WIGGINS, Chairman; A. J. WRIGHT, Wm. PETERS.

REDUCTION OF DUES.

Moved by S. Cauldwell, seconded by E. Hall, and Resolved—That this Committee recommend that our delegates to the Provincial Grange be instructed to advocate a reduction of dues to Provincial Grange to the amount of one-half present rates, (or two cents per member) instead of four cents per member. Carried.

COMMITTEE ON MILEAGE.

Your Committee is of the opinion that only the railway fares be allowed to each delegate attending this meeting. Total amount for all, \$58.40. Carried.

ON IMPLEMENTS, SEED-GRAIN, ETC.,

We, your Committee appointed on Implements and Seed-Grain, beg leave to submit the following:—

We recommend the Patrons to procure all the best improved labour-saving implements as a great help in putting in and securing crops in proper time and order. In ploughs, we recommend those with skimmers. Also best iron harrows; seeders with cultivators combined. In reapers, self-binders. Also sulky rakes and horse hay-forks. In grains, we recommend to change all kinds of seeds from one locality and kind of soil to another. In fall wheat, we recommend *Clauson* and *Red Winter*. In spring, for heavy land, *Fife*. For up-land, *McCarling* and *White Russian*. In barley, for sale, six-rowed *White*. For feeding, *Black* barley. In oats, *Black Tartar*. For feeding purposes, the *White*; also for meal.

Respectfully submitted.

J. O. CULLEN, B. J. ROGERS, J. GARBUTT, P. HINMAN, JAS. STODARD, JAS. MOORE.

COMMITTEE ON THE BEST METHOD OF APPLYING MANURE, ETC.

We, your Committee on the best method of applying manures and renovating worn out soils, beg leave to report, as follow :—

First—We think the best method of applying manure is, as a top-dressing, on loam soil.

Second—On clay soil by ploughing under, seems to loosen up the soil and make it more productive.

Third—We would impress very strongly the advantage of seeding more to clover, either as a green crop, to plough under, or to cut for clover seed, and then plough under.

Fourth—We would recommend summer fallowing on worn out soils, where the land is filthy, as a means of getting clover seed to catch the following season with better results.

JOHN MILLER, THOS. GIBSON, IRWIN ROSEVEAR, JOSEPH COLE, G. S. AYLESWORTH, WM. PRESTON.

On motion, the report was received and adopted.

HOUSE AND HOME.

The three words in the English language of most influence are. "Mother, Home, and Heaven." What is home without a mother? We all know the influence of a mother lingers in our memories. A mother has the most to do to make home what it is. If a father provides the place and furnishings for a home the mother has the modifying of this home. Let the chief ornaments be smiles and kind words, and as that home is best that comes nearest heaven, and as love is heaven's boon, and order is heaven's first law, let love and order prevail.

The home should be a school for inculcating the finer feelings, for establishing in the inmates the principles of truth, honour and courtesy, and to teach sobriety, both in temper and appetite. In order to do this, pictures should be there to delight the eye, music to delight the ear, and books of poetry, narratives of travel, etc., should be furnished to instruct and entertain the mind, for

"The mind is the stature of the man."

In short, the home should be a place to live, not merely to stay, and to make life pleasant, the home should be a place of culture, intelligence and sobriety.

BRO. N. PETERS; SISTERS MRS. IRA BRISBIN, MRS. BLODGETT, MRS. J. TRULL, MRS. B. J. ROGERS.

On motion, the report was received and adopted.

GOOD OF THE ORDER.

First—We think one great want of the Grange at the present time is a more proper delineation of the unwritten work of the Order, and we would recommend that the Worthy Master of this Division Grange, or some competent person, should visit each subordinate Grange in their jurisdiction at least once a year for the purpose of imparting instructions.

Second—Knowing the great influence of the press, we would urge upon each Grange the importance of having every family take one or more of our Grange papers, and we would recommend every member to carefully read and study our Constitution, Rules and Rituals, as we think a more thorough knowledge of them would prepare us to work more efficiently in the Grange, and assist us to do our business in a more business-like manner, and, therefore, make our meetings more interesting.

Third—We would further recommend that members should be more punctual and regular in attendance in their meetings, and endeavour to introduce musical and literary entertainments into the Grange, and the discussion of subjects relating to agriculture, and we would also recommend

that members should more frequently visit each other's Granges.

All of which is respectfully submitted.

D. LICK, *Chairman*; E. J. HONEY, S. CAULDWELL, EZRA HALL, ARTEMAS BLODGETT, H. LAPP.

On motion, report was received and adopted.

COMMITTEE ON LEGISLATION.

Your Committee on Legislation beg leave to report as follows :—

First—Your committee feel that it is impossible, in the very short time at their disposal, to do justice to this question, as it requires careful consideration in dealing with it in its several forms, but after considering this question carefully, we feel that there are two or three points in which there might be a great saving to the ratepayers. We have considered the matter of County Councils, and would earnestly recommend that our delegates to Provincial Grange be instructed to urge upon the Legislature the necessity of memorializing the Legislature to reduce the number of representatives to one member from each municipality, with voting power equal to the present representation, as provided by the Municipal Act.

Second—Your committee regrets to learn, that, owing to a change being made in the Division Court Act, whereby those persons residing close to the railways suffer a gross injustice, from the fact of the law being so changed, that parties suffering loss from stock being killed, and otherwise damaged, can get no redress from Division Courts, but are compelled to go to higher courts for redress, which puts it out of the reach of poor people, as they, in many cases, are not able to enter and carry on law suits against such huge monopolies as now hold the various lines of railways. Your committee also recommend that delegates be instructed to bring this matter before the notice of the Provincial Grange, and to have the law amended in this respect, as your committee believes this to be class legislation, and ought not to be tolerated.

Third—Your committee, further, is of opinion that the Senate Chamber (or Upper House), at Ottawa, being both cumbersome and expensive, and in many cases very injurious to the welfare of the citizens of this Dominion, and considering the very large amount of money that might be saved to the inhabitants by having the same abolished, we would recommend that steps be taken by the Dominion Grange to have petitions prepared and circulated through the various subordinate Granges and municipalities generally, asking the Dominion Parliament to take such steps as will cause the same to be abolished.

S. PARSONS, *Chairman*; THOMAS MEDD, IRA BRISBIN, JESSE TRULL, THOS. JOHNSTON.

On motion, report was received and adopted.

AUDITORS' REPORT.

We, your auditors, have examined the books of the treasurer and secretary, and report as follows :—

The treasurer has received.....	\$256 35
Paid out.....	152.84
Balance on hand.....	\$103.51
The secretary has received.....	294.97
Paid out.....	292 37
Leaving a balance of.....	\$2.60
We find a total balance on hand in treasurer and secretary's book of.....	\$106.11
N. PETERS, } <i>Auditors.</i>	
D. KENNEDY, }	

Cobourg, Jan. 14th, 1885.

On motion, the auditors' report was received and adopted.

Moved by Bro. Jas. J. Brealey, seconded by Bro. Jas. Stodard, that Bros. Parsons, Kennedy and Medd, be a committee to answer questions sent by the Government to the councils and public

generally, in regard to the reduction of County Councils. Carried.

REPORT OF COMMITTEE ON INSURANCE.

Your committee beg leave to report that we have great pleasure in stating that each succeeding year finds our company increasing its membership and establishing itself in the confidence of the general public.

During the past year a marked increase is noticeable in the number of policies issued; also in the amount of money paid as profits, to parties whose policy expired during the year.

We have also much pleasure in stating that the losses last year have been comparatively light, being a little over \$4,000, notwithstanding that it is the largest Mutual Company in the Province.

The efficient management of the company in the past has induced the Board to reduce the amount of the undertaking by about one-third, which, they hope, will have the effect of increasing the business of the Company still more in the future, and we trust that the delegates will go home from this meeting with the determination of doing all in their power to further the interest of this, the great Co-operative Insurance Company.

D. KENNEDY, JAMES BROCK, JAMES DUNBAR, JESSE TRULL, S. PARSONS.

On motion, the report was received and adopted.

Moved by Bro. Hugh Davidson, seconded by Bro. Wright, that this Division Grange, in session, take this opportunity of expressing their confidence in the management of the G. W. S. Co., and are pleased to notice the increased support given it by the members of the Order. Carried.

Moved by D. Kennedy, seconded by H. Lapp, that the thanks of this Division Grange be tendered E. A. McNaughton, for his kindness in allowing us the use of the Council Chamber during the annual session of the Grange, and that a copy of this resolution be sent Mr. McNaughton. Carried unanimously.

Moved by Bro. H. Davidson, seconded by Bro. John Miller, that this Grange tender their thanks to the hotels of this town for their kindness to us during our sojourn here, and that a copy of this resolution be sent to the managers of the Horton and British Hotels. Carried unanimously.

Moved by S. Parsons, seconded by J. Miller, that there be an order drawn on the treasurer for the sum of \$2, to be tendered to the caretaker of this hall. Carried.

Moved by J. E. Gould, seconded by B. J. Rogers, that a vote of thanks be tendered to the Grand Trunk Railway Company, for their kindness in granting reduced fares to the delegates and visiting members attending this annual meeting. Carried unanimously.

On motion, the Grange closed.

JOSEPH E. GOULD,

Secretary N. & D. D. Grange, No. 14.

UPPER NEWPORT GRANGE, No. 619.—Officers installed for 1885 :—Master, Edwin S. Creed; Secretary, Miss Orelia Dodge; Treasurer, Wm. Dodge; Overseer, Albert Parker; Lecturer, Jas. Fish; Chaplain, Martin Mumford; Steward, Herbert Parker; Assistant-Steward, Edward W. Creed; Gate-keeper, Lewis Dimock; Ceres, Miss Fannie Parker; Pomona, Miss Jessie Creed; Flora, Miss Matilda Dodge; Lady Assistant-Steward, Miss Althea Parker; Auditors—Robert Davidson, Albert Parker; Executive Committee—Herbert Parker, James Fish, Wm. Dodge; Delegates to Dominion Grange—James Fish, Herbert Parker.

"WHAT is economy?" asks the Philadelphia North American. We'll tell you. It is paying ten cents for a cigar and compelling your wife to turn her last season's dress to make it do for another winter. The country is fairly bulging with such economy.

GARDEN AND ORCHARD.

FOR THE RURAL CANADIAN:

WALKS IN THE GARDEN.—VII.

THE making of hotbeds will soon be in order, and they are of great importance to any one who would garden successfully. The first cost of the sashes is an item, but if they are glazed with double thick glass, as I mentioned last month, and painted occasionally, they will last a lifetime without repairs. The frames should be about six feet by three, and can be made by any one who can handle a saw and hammer. The front should be about eighteen inches deep, and the back a foot. The cost of the manure need not be taken into account. Using it for hotbeds merely means making it do double duty, first as a heat producer, and after being thoroughly rotted, as a fertilizer in the fall. All the weed seeds are killed, and the manure is much better than if procured direct from the stables.

It is not necessary to dig a pit, a hotbed does just as well on the surface of the ground. A neat plan is to lay off the surface intended for the beds, and drive a square post at each corner, nailing rough boards to these about two and a half or three feet high, and forming a box a foot or eighteen inches larger inside than the frames. It will save manure and economize heat to have the pile all in one, no matter how many frames there are, ranging them side by side as closely as possible. In the winter this big box can be covered with boards so as to keep out the snow, and save the trouble of clearing it away.

I HAVE previously referred to flax-mill refuse or sheaves as useful for several purposes, and for nothing are they better than hotbeds. I put about six inches of sheaves on the ground, inside the big box, than that in the frames as close as they will pack, and tramp sheaves round them tightly up to the top; then raise them again with blocks about eighteen inches, and pack in more sheaves to the top of the outside box. Manure is then forked in lightly, with considerable sheaves mixed, and tramped down evenly and as solid as possible. This mixture will hold the heat at least a month longer than clear manure, indeed if the sheaves could be thoroughly wetted, they would do much better alone. Those outside keep out the cold, and none can get in except through the glass. The manure should be left about ten inches below the glass, and if the earth to be used is frozen, the lumps can be thrown in at once, the glass put on and the bed left to steam for three or four days, by which time the earth will be mellow and can be raked down. For most crops a depth of five or six inches of earth is desirable.

IF there is more than one frame it is as well to use one for lettuces and radishes, the seed of which may be sown as soon as the soil is raked down. When the radishes and lettuces are thinned out it will come in useful for pricking out tomato plants, etc., that need to be transplanted. The other beds had better be left till the weed seeds start, and then raked thoroughly; then left to grow a few days longer, and raked again, by which time the rank heat will be dispelled, and the soil clean enough for flower seeds.

I THINK about the middle of March is a good time to make a hotbed. Some commence earlier, but the extra care involved is more than the results are worth. This will leave the soil just about right for flower seeds by the first of April,

It is just as well to plant a few melon or cucumber seeds in the centre of each frame, to cover the unsightly beds when all the other plants have been removed. A good way is to plant them in sods, or better still, in a turnip hollowed out, so that those which are not intended to remain can be transplanted to other places in the garden, when the weather is warm enough. Seeds of quite a number of tender vegetables that are difficult to transplant can be treated in the same way, as no displacement of the roots is possible.

As the orders for seeds will probably soon be made out by forehanded gardeners, it might be worth while to outline the varieties that are needed. The quantities indicated are for an ordinary family of four or five persons, and on the assumption that there is no particular preference for one kind more than another. Having tried most of the new and old kinds that have been advertised for several years past, I can recommend the following:

Beans.—Early Valentine, Golden or Ivory Wax, one-half pint each.

Beet.—Henderson's Pineapple, one ounce.

Carrot.—Half-long Scarlet, Carenton, one ounce.

Cabbage.—Winnigstadt, (early); Filderkraut and Drumhead Savoy, (late), one package each.

Cauliflower.—Lenormand, one package.

Corn.—Early Marblehead, Stowell's Evergreen Egyptian, one package each. These may all be sown at the same time, and will give a succession of roasting ears till frost.

Celery.—White Plume, Carter's Dwarf Red.

Cucumber.—Rollison's Telegraph (frame); Early Russian, for pickles, one package each.

Lettuce.—Bruce's Gardener's Favorite, Carter's Giant White Cos, one package each.

Musk Melon.—Montreal Green or Bayview, one package. I can not say about water melons, I have too cold a soil to grow them.

Onion.—Yellow Danvers and Red Wethersfield, one-half ounce each; Silverskin, (pickling), one package; Sets, one pint, Chalots, one pint.

Parsnip.—Hollow Crown, one-half ounce.

Pepper.—Golden Dawn, Long Red, one package each.

Parsley.—Carter's Moss Curled, one-half ounce.

Peas.—Bliss' American Wonder, Stratagem, one quart each.

Radish.—French Breakfast, White Olive, Long Scarlet, Long White, one half ounce each.

Spinach.—One ounce.

Salsify.—One package.

Squash.—Perfect Gem, Essex Hybrid, Summer Scallop, one package each.

Tomato.—Acme, Livingstone's Perfection, one package each.

Sage, Summer Savory, and Thyme, one package each.

This list may seem rather long, but there is hardly anything not considered necessary. The cost would be between \$4 and \$5, and they had better be bought direct from a reliable, well-known dealer.

FOR THE RURAL CANADIAN.

SEASONABLE HINTS FOR FRUIT-GROWERS.

The year 1884 having passed away, it is now the time for the farmer, the fruit-grower, and the market-gardener to

BALANCE ACCOUNTS AND BEGIN ANEW.

One who keeps no accounts, and has no record of the profits and losses of each year, has no idea of the ever-increasing satisfaction and pleasure

such a record now for fourteen years, and finds it a source of yearly increasing interest and usefulness.

Three books, at least, are needed in connection with either business above referred to, viz., a Cash Book, a Shipping or Sale Book, and a Journal of accounts.

The Cash Book may be kept as an account with the garden, orchard, or farm, either of these being made debtor to every item of running expenses, and creditor by the proceeds of every sale. This book, on being balanced up at the end of the year, will show the total expenses and the gross income; while the balance on hand will be the net profit of the business.

These three items may be entered on a single page devoted to the comparative profits of every year, in groups of decades.

The Shipping or Sale Book will be ruled in many perpendicular columns. The first will be devoted to the dates of shipments; the second to the names of buyers or consignees and their post-offices; the third to signs, marks and other notes; and the rest to different kinds of fruit or vegetables and the quantities of each, as e.g., "Apples in barrels," "Pears in barrels," "Pears in baskets," "Peaches, Quinces," "Cherries in fourteen quart baskets," "Tomato plants," "Green corn in dozens," etc.

These columns, on being cast up at the end of the year, will give the quantity of fruit of each kind which the orchard or garden has yielded during the whole season in boxes, barrels, quarts or dozens, as the case may be.

These results for the year may then be entered on a single line of a page or two, similarly divided into perpendicular columns, and showing at a glance a comparative statement of fruit shipments for many successive years.

The Journal will contain the several accounts with different persons with whom the fruit grower or market gardener has any business whatever, with every necessary detail. From this book abstracts of accounts may be drawn off at any time for the satisfaction of buyer, seller, or workmen. "Short settlements make long friends" is a proverb well worthy of inscription in large letters upon the cover of the Journal.

In addition to these three books, the grower of fruits on a large scale will find a Scrap Book most convenient in which to paste "account sales" from commissioners. The book will be a companion of the Journal and Shipping Book, and will show the proceeds of each shipment and the various charges.

From a comparison of these various books the grower will be able to glean much useful knowledge. He will see at a glance what varieties sell best, the advantages of pushing or retarding shipments, and the advantage in the use of one kind of package over another. In short, no man can do a business that will be satisfactory to himself, or by which he can expect success, who neglects book-keeping in some careful way.

PLANS FOR WORK.

Another book will be found most useful to either the farmer, gardener, or the fruit-grower, and that is a Pocket Note Book, in which to enter plans for work. Often when engaged with one thing, another will present itself that needs attention; a gate needs repair, a ditch needs digging out, a bridge needs a new plank, or a tree needs top grafting; and it will be found most useful to make a pencil note of such items for attention at the proper time. Or it may be that as you are walking over your yard, garden, or farm, you notice here a suitable place for a flowering shrub, there for an ornamental tree; or perhaps yonder some vacancies for apple or pear

down the number of each kind of trees, shrubs, or plants needed from the nursery to fill such spaces. Or, in your reading of *THE RURAL CANADIAN*, or other good agricultural papers, you meet with "Seasonable Hints" which suggest plans for the improvement of your property, or the better conduct of your business, then use your pencil, friend, and "dot it down."

TAKE THE PAPERS.

Money spent in subscribing for good reading matter is well invested. No other investment pays better in proportion. One article will often be worth to the reader the amount of his year's subscription, by warning him against humbugs, advising best varieties of fruits or vegetables for planting, or giving him information concerning best methods of cultivation.

The winter season is the time of leisure to read and plan for spring work. Every farmer should inform himself as to the best papers in his line of work, and subscribe for them.

Almost every farmer is more or less a fruit-grower, and therefore we write on Horticulture in *THE FARMER*. The writer having now had fourteen years' experience in this line, hopes to give occasionally, to our amateur friends at least, some useful hints worth pencilling down in the Note Book above referred to.

Take *THE RURAL CANADIAN* then; and if you are very much interested in fruits and flowers by all means add *The Canadian Horticulturist*, which is entirely devoted to them. It will contain, during 1885, some papers on Canadian Botany by Mr. Spotton, of Barrie, written in popular style, and well illustrated with cuts of Canadian wild flowers. The *Horticulturist* is published monthly by Mr. D. W. Beadle, of St. Catharines, at the same price as *THE RURAL CANADIAN*.

If you are specially interested in fruit growing, unite with the Fruit Growers' Association of Ontario, and so get the *Horticulturist* free, and a report of all their meetings.

THE PRINCESS LOUISE APPLE

will shortly be introduced to the public. It was introduced to the Fruit Growers' Association in the year 1879 by the writer, who has since placed its sale in other hands. The Committee on new apples suggested that it be called the "Princess Louise," from its beautiful clear appearance. Its great merit is as a dessert apple to take the place of the Fameuse, from which it is a chance seedling. It partakes largely of the excellence of its parent, but is free from the "spot," which so ruins the Fameuse. It is a yellowish apple, with a wonderfully bright crimson blush, and ripens in January.

The little one was the guest of her grandmother, and had been feasted with the usual prodigality of grandparents to a grandchild. When a second dish of pudding was placed before the child, the first having been dispatched with some difficulty, she looked first at the steaming dish and then at the grandmother, and with a sigh said, "Say, grandma, I wish I was twins."

"How do you braid your hair so nicely?" queried a gentleman who was visiting a lady friend. "Oh," broke in her *enfant terrible* sister, "she takes it off and ties the knot to the gas chandelier and fusses over two hours every morning."

"No, ma'am!" exclaimed the provoked young man to a lady friend, who, on the refusal of her favourite, had asked him to accompany her to a party: "I don't play second fiddle to any one!" "No one asked you to play second fiddle," replied the girl, with a smile; "I only asked you to be my beau."

HOME CIRCLE.

THE MINISTER'S PIE.

"Look here, Sally!"

Mrs. Deacon Farrell brushed the flour from her hands, casting meanwhile a complacent eye over the well-filled kitchen table, with its generous array of unbaked pies and cakes, the plump turkey stuffed and trussed ready for the morning's baking, and the big chicken pie to which her skilful fingers had just put the finishing touches, as she repeated rather more decidedly:

"Look here, Sally! There's enough chicken left, with the giblets—that I never put in my own pie, because the deacon don't relish 'em—ter make a Christmas pie for the minister's folks. 'Twon't need to be very large," she added in reply to Sally's doubtful look. "Only the minister and his wife—and you can bake it in that small-est yaller dish."

"Now, I'm goin' upstairs to look over them rug rags, an' you make it an' bake it right off, so't I can send it over by the deacon. He's got ter go out to the Corner this afternoon, an' can take it along as well as not."

She bustled out of the door, but the next moment, seized, perhaps, with a sudden pang of compunction, she put her head in again, to say warningly:

"Be sure that you put in a good parcel of gravy; that'll keep it from bein' dry, if 'tis half giblets."

"Yes'm," answered Sally, briskly, and catching up the rolling-pin she brought it down with an emphasis upon a lump of dough upon the mould board.

As the stairway door closed behind her mistress Sally dropped the rolling pin, and a look of perplexity crept over her dull face, making it ten times more stolid than usual, while she repeated, in ludicrous bewilderment—

"Giblets! What, in all creation, if anybody can tell me, does she mean by them?"

Involuntarily, she took a step forward, but checked herself quickly, while a cunning smile replaced the look of perplexity, and she muttered triumphantly:

"I guess I ain't a goin' ter confess my ignorance ter the deacon's wife, an' hear her say, as she always does, 'Two terms in 'cademy, Sally, an' not know that!' No, ma'am! not while there's a dictionary in the house."

So, softly creeping into the adjoining sitting-room, Sally hastily opened the big dictionary on the Deacon's writing desk and began her search for the mysterious word.

"G-i-b—here 'tis!" and she read aloud to herself, with an air of triumph, the following definition:

"Those parts of the fowl that are removed before cooking—the heart, gizzard, liver, etc."

"That's it!—heart, gizzard, liver, and so forth," she repeated, joyfully, as she retraced her steps to the kitchen, and began with great alacrity to fill, according to directions, the minister's pie; keeping up, meanwhile, a running fire of comment for her own special benefit.

"Six gizzards! Well, that is rather 'steep' as Dan Watson would say. But I guess the deacon's wife knows; if she don't 'taint none o' my business. Six hearts! Them's small, and tuck into the corners handy. Six livers! Seems ter me they don't fill up much!" and she glanced with a perplexed air at a pile of denuded chicken-bones that formed her only resource.

"Now, I wonder," with a sudden inspiration, "what that 'and so forth,' meant? Here's 'hearts, gizzards, and livers,' plenty of 'em, but no 'and so forth,' and the pie ain't more'n two-

thirds full yet. It must mean," and she cast a bewildered look at the half filled pie, "the chicken's legs. I never knew nobody ter put 'em in a pie, but that must be what it means, as they'll just fill it up."

No sooner thought than done. In went three pairs of stout yellow legs upon which the unfortunate owners had strutted so proudly only a day before; on went the well-rolled dough, covering them from sight and into the oven went the minister's pie, just as the mistress of the house re-entered her kitchen, and, with an approving glance at the snowy pastry, remarked encouragingly:

"That pie looks real neat, Sally. I shouldn't wonder if in time you came to be quite a cook."

It was Christmas morning, and Miss Patience Pringle stood at the minister's back door. To be sure it was rather early for callers, but Miss Patience was, as she often boasted, "one of the kind that never stood on ceremony." Indeed she didn't consider it necessary even to knock before she opened the door, although she was thoughtful enough in opening it to do so softly. The minister's wife was just taking from the oven a newly-warmed chicken pie, which she nearly dropped from her hands, so startled was she by the sharp, shrill voice that spoke so closely to her ear.

"Good mornin', Miss Graham. Haint been to breakfast yet, I see; we had ours half an hour ago. I know my mother used to say that if anybody lost an hour in the mornin', they might chase after it all day and not ketch up with it then."

"That's a good-looking pie; pretty rich pastry, though, for a chicken pie. I don't never put much shortenin' in anything of that kind; it's rich enough inside ter make up. But you're young, and have a good many things to learn yet. I run in to see if you could spare me a cup of yeast; mine soured, an' the last batch of bread I made I had ter throw to the hogs."

"Certainly," and a roguish smile flitted over the fair face of the minister's wife at this specimen of her meddlesome neighbour's own-economy. But she had learned the rare lesson of a judicious silence, and taking the cup that Miss Patience produced from beneath her shawl, she bade her visitor be seated while she left the room to get the desired article.

As her steps died away Miss Patience noiselessly arose from her seat, and, approached the dresser upon which the pie stood, peered curiously into the apertures in the crust, her sharp face expressing eager curiosity.

"I'll bet a ninepence she didn't know enough ter put crackers in. I wish I could get one look, jest ter satisfy my own mind," she added. And, determined to accomplish her object at all hazards, she ran a knife deftly around a small portion of the edge, and inserting four inquisitive fingers, lifted the brown crust and took a glimpse of the contents.

A look of unmitigated disgust passed over her face. Dropping into a convenient chair, she actually groaned aloud:

"Well, I never! an' we payin' that man \$500 a year, besides a yearly donation party! Ough!"

Unsuspecting Mrs. Graham, as she returned with the yeast, was somewhat puzzled by the sudden frostiness of her guest, who hurried out of the house as if some dreadful contagion had haunted it; but when the minister, in carving the pie that the deacon's wife had sent, made two curious discoveries almost simultaneously, the reason for Patience's altered demeanour was made plain, and the young pair indulged in a hearty laugh that made the old parsonage ring like a peal of Christmas bells.

The Tuesday following was the regular day for

the weekly sewing circle, and seldom had that interesting gathering proved so lively and animated as on this occasion.

Miss Patience was in the field bright and early, and it was evident at a glance to those who know her best that she was well nigh bursting with some important secret that she was only waiting a fitting opportunity to divulge. That opportunity was not long coming, for Mrs. Deacon Farrell, who was a constitutional croaker, took occasion to say, in reference to the hard times:

"The Deacon has been tryin' ter collect the church tax, and he says he never found money so tight in all the years he's lived here. It's as hard ter get five dollars now as it used ter be ten dollars."

"And no wonder," spoke up Miss Patience, with the stony severity of a sphinx. "You can't expect folks ter like payin' out their money when they see it fairly thrown away and wasted."

Everybody looked curious, and some of the younger girls began to bridle defiantly. The minister's sweet young wife was evidently a favourite with them, at least.

"What do you mean by that?" asked Mrs. Deacon Farrell, pointedly. "Miss Graham is young and inexperienced, to be sure; but, as Deacon was saying only yesterday, she does very well indeed, considerin'."

Miss Patience tossed her head knowingly. "I don't want ter say nothin' ter hurt her, but livin' next door, as I do, I can't always help seein' and hearin' things that other folks can't be expected to know about, an' when I see an' know things like—"

There was an ominous pause, and the deacon's wife asked, excitedly:

"Like what?"

"Chicken pies, with the legs and feet of the chickens baked in!"

Had a thunderbolt fallen among them, it could not have caused greater surprise to these tidy, thrifty New England housekeepers than this dreadful revelation of the incapacity of the pastor's young wife.

"Are you sure of it?" gasped one matron, breaking the ominous silence.

"I know of it for a fact," was solemnly returned.

"Chicken legs in a pie!"

"She's a born fool!" ejaculated the deacon's wife, indignantly, "and I'm thankful, for her poor husband's sake, that I sent her over one of my pies yesterday. They had to throw hers away, of course, and it's lucky that he didn't have ter go without his Christmas breakfast on account of her ignorance and shiftlessness."

"How did you know about the pie?" asked one of the girls.

Miss Patience bristled defiantly. "That's nobody's business but my own!" she retorted, tartly. "I don't go round to find out things that don't concern me, I'd have you know; but when they're thrown right into my face, as you might say, I don't shut my eyes no more'n other folks."

Just here the door opened, and in walked the subject of their conversation, her pretty face glowing with the haste she had made, and a mischievous twinkle in her brown eyes, that nobody noticed, so occupied were they in hiding the confusion that her sudden entrance had created.

Walking up to the table where most of the ladies were sitting, she saluted them cordially, and then, holding out upon the tip of one slender finger a well worn silver thimble, she said archly:

"Where do you think I found your thimble, Miss Patience?"

So pleased was Miss Patience to regain her lost treasure that she forgot for a moment all her assumed dignity, and exclaimed, joyfully:

"Well, I declare, I am glad to see that thimble

once more! I told Mary Jane that I felt sure I had it on my finger when I ran into your house on Christmas mornin' arter that yeast. But when I got home it wasn't nowhere to be found. Now, where did you find it?"

Her shrill, high voice had attracted the attention of all in the room, and everybody looked up curiously as the minister's wife replied, with an innocent smile:

"In the chicken pie that our good friend here"—and she nodded brightly to Mrs. Farrell—"sent me. I left the pie on the dresser when I went down cellar after your yeast, and as soon as I came back I put it on the table, and when my husband cut it there was your thimble in it. How could it have got there? It is certainly very mysterious anyway."

Silence, dead, profound, yet oh how terribly significant to the deacon's wife and her spinster neighbour, fell upon the group.

This was apparently unnoticed by Mrs. Graham, who, with a playful admonition to Miss Patience to take better care of her thimble in future, began an animated conversation with the ladies nearest her that soon restored the company to their wonted ease and humour.

But poor Miss Patience! She never heard the last of that lost thimble, while the deacon's wife, to the day of her death, never trusted any hands but her own to make pies for her minister.

OLD OR YOUNG?

BY FOURSORE AND FOUR.

TO MY WIFE.

They say we're growing old, my dear,
But old we cannot be;
Since three or four score years appear
Much like a summer day.

Affections old? Our memories old?
Such fact I fail to see;
When love in tropics ne'er grows cold,
Nor minds less faithful be.

TO MY HUSBAND.

Old only as the gold, my dear,
Refined, and stamped anew;
Old only as the morning dew
Drinks up the early dew.

Our wedding turned the water pure
Into the choicest wine;
And age but yields, I'm very sure,
Young clusters on the vine.

BOTH TOGETHER.

Then let us each be young to-day,
Of time beg not borrow;
Sure, while we tread our upward way,
We'll not be old to-morrow.

DOES ALCOHOL WARM US?

A patient was arguing with the doctor the necessity of his taking a stimulant. He urged that he was weak and needed it. Said he:—

"But, doctor, I *must* have some kind of a stimulant. I am cold, and it warms me."

"Precisely," came the doctor's crusty answer. "See here, this stick is cold," taking up a stick of wood from the box beside the hearth and tossing it into the fire; "now it is warm; but is the stick benefited?"

The sick man watched the wood first send out little puffs of smoke, and then burst into flame, and replied: "Of course not; it is burning itself!"

"And so are you when you warm yourself with alcohol: you are literally burning up the delicate tissues of your stomach and brain."

Oh! yes, alcohol will warm you up, but who finds the fuel? When you take food, that is fuel, and as it burns out you keep warm. But when you take alcohol to warm you, you are like a man who sets his house on fire and warms his fingers by it as it burns. — *Christian at Work.*

ANTIDOTE TO DULL TIMES.

There has been a grand overhauling of old clothes, boots and shoes, remnants of dry goods, etc., in our house of late. Very many persons are out of work, and we have felt impelled to sacrifice articles that we had thought to keep for possible future use. So some other households are using with advantage articles that were lumbering our shelves. The times are dull, but too much talking about the dullness of business is depressing, and where possible we have managed to find a day's work for one and another who had had little or nothing to do for several weeks. An upholsterer, out of work, has earned a few dollars in repairing sundry articles of furniture; a journeyman carpenter put up a long-needed door, and attended to other wants; we have permitted a painter to anticipate matters a few months and paint our roof. He charged less than the usual spring prices for such work. The weather has been mild enough and dry enough to permit this. Surely we should seek to share our earnings in this way, and those whom we have helped much prefer earning a dollar to receiving a trifle as a gratuity. Let all the housekeepers who can do so make a day's work for some unemployed man or woman, and thus help to bear the burdens of others.

SHUT THE DOOR!

Nine people out of ten leave a door open behind them. They do not seem to know how to shut a door. It appears to be a natural and, probably, an inherited inability, just as with some people there is no such thing as knowing one tune from another, as with others it is impossible to acquire facility and handiness in the use of tools. Modern ingenuity has tasked itself to save a suffering world from the incapacity or negligence of people who never close a door, by the application of weights and springs that will automatically do what every man, woman and child ought to do instinctively. But even these appliances are not always to be relied upon; clearly the door should be closed by the person who opens it. There ought to be a thorough course of instruction in our schools in the art of shutting doors. The first lesson would inculcate the elemental and simple duty itself. Boys and girls should be kept passing a doorway, each one opening and closing the door for himself or herself, until not a mother's son or daughter of them could leave a door ajar. Then the finer features of the accomplishment might be introduced. There are people who always slam a door; there are others who hold it open, and close it so slowly that numberless colds and sore throats have time to march through. But, without becoming too fastidious, it is important that every one should be taught to close the door and fasten it in some way.

An exchange gives good advice in terms following:—"Do not place too much reliance upon scientific names of plants when buying ornamental plants, especially from agents. We have known some of our common trees to be sold to farmers under their botanical names. First-class nurserymen give both the scientific and the common name (if the plant has one) in their catalogues. We would not discourage the planting of native trees, but we would advise farmers not to purchase plants which grow naturally all about them, simply because the name under which they are sold is new to them."

"Robbie," said the visitor, kindly, "have you any little brothers and sisters?" "No," replied wee Robbie, solemnly, "I'm all the children we've got."

YOUNG CANADA.

STICK TO YOUR BUSH.

A SUCCESSFUL BUSINESS MAN'S STORY.

One day when I was a lad, a party of boys and girls were going to a distant pasture to pick whortleberries. I wanted to go with them, but was fearful that my father would not let me. When I told him what was going on, he at once gave me permission to go with them. I could hardly contain myself for joy, and rushed into the kitchen and got a big basket, and asked mother for a luncheon. I had the basket on my arm, and was going out of the gate, when my father called me back.

He took hold of my hand and said in a very gentle voice: "Joseph, what are you going for, to pick berries or to play?" "To pick berries," I replied.

"Then, Joseph, I want to tell you one thing. It is this: When you find a pretty good bush, do not leave it to find a better one. The other boys and girls will run about, picking a little here and a little there, wasting a great deal of time, and not getting many berries. If you do as they do, you will come home with an empty basket. If you want berries, stick to your bush."

I went with the party, and we had a capital time. But it was just as my father said.

No sooner had one found a good bush than he called all the rest, and they left their several places and ran off to the new found treasure. Not content more than a minute or two in one place, they rambled over the whole pasture, got very tired, and at night had a very few berries. My father's words kept ringing in my ears, and I "stuck to my bush." When I was done with one, I found another, and finished that; then I took another.

When night came I had a large basketful of nice berries, more than all the others put together, and was not half as tired as they were.

I went home happy; but when I entered I found my father had been taken ill. He looked at my basketful of ripe berries, and said: "Well done, Joseph. Was it not just as I told you? Always stick to your bush."

He died a few days after, and I had to make my own way in the world as best I could.

But my father's words sank deep into my mind, and I never forgot the experience of the whortleberry party; I stuck to my bush.

When I had a fair place and was doing tolerably well, I did not leave it and spend weeks and months in finding one a little better. When the other men said, "Come with us, and we will make a fortune in a few weeks," I shook my head and "stuck to my bush." Presently my employers offered to take me into business with them. I staid with the old house until the principals died, and then I took their place. The habit of sticking to my business led people to trust me, and gave me a character. I owe all I have and am to this motto: "Stick to your bush."

A DOG STORY.

When I was a boy—more than half a century ago—living with my parents in a remote part of the country, we had a very remarkable carriage dog, the first of his kind imported into that part of the world, though the breed is now common enough.

Nelson was large, strong, muscular, and deep-chested; surly, an unsocial in his habits, verging on the misanthropical (an unusual quality in dogs), save to the favoured few whom he honoured with his friendship. To these he was as true as steel; faithful and fond, though not demonstratively so, like those fawning dogs that

are perpetually jumping upon you, soiling your clothes, and slavering on your hands. He was decidedly a canine "character"—an oddity of a dog—grave and taciturn, rarely giving vocal expression to his feelings, save when irritated—and then his growl, his bark, and, above all, his bite, were to be dreaded, as many a frightened boy and tattered garment testified; for he hated beggars like a parish beadle, and treated ragged peasants with aristocratic hauteur.

To complete his physique, I have only to add that he had one "wall eye," white and glaring, which gave a special ferocity to his countenance; so that one might say of him, as Launce said of his dog Crab, "I think he be the sourest-natured dog that lives."

He was a dog, too, of marvellous adroitness. I taught him to walk up a ladder placed at a rather steep inclination into a hay-loft over the coach-house, and down again, which was a more difficult feat. It was an amusing sight to see the gaping rustics watching this performance, especially as he descended with an increasing velocity till he reached the third lowest rung, from which he sprang to the ground.

And he had other accomplishments. He would ride one of the carriage-horses when taken out to exercise, sitting on his back like a monkey on a bear, the coachman riding the other. How well I remember it, as if it were but yesterday—those two noble bay horses, Peer and Andrew, walking slowly along the road with their dissimilar riders! The horses took kindly to their dog groom, for they loved him and he loved them, so that this equino-canine affection was ludicrously touching. They spent their lives together—they and the coachman. They were rarely separated, for he went with the coachman when he walked or rode, and ran after the carriage when he drove. And now comes the tragic part of my story.

It happened one summer that my father and mother went to the metropolis—a rare event with them—and took the carriage and horses. The dog my father would not take; so he was locked into the stable when they left, and I and a brother alone of the family remained behind.

When Nelson was liberated, some hour or so after the party had gone, he was in a state of great distress and perplexity. He rushed about in every direction, seeking his companions in vain. He did not howl or whine, but bore his grief in silence.

At last he went into the coachman's bedroom, and poking out a pair of his old shoes from under his bed, lay down beside them, expecting, no doubt, that the man would return and look for his shoes. From this spot he rarely moved. With each day his misery increased. After a time he refused all food, and moped about sad and stupid, so that it was most affecting to look at him. No one ventured to soothe or caress him, for we began to fear that he might be falling into a state of melancholy madness, and that it would not be safe to meddle with him. All we could do was to leave food and water near him. And so he went on day by day, moping and pining, growing weaker and weaker, till he scarcely stirred from the room.

It was nearly a week later, as well as I remember, when my father and mother returned, late in the evening. The sound of the carriage-wheels and the tramp of the horses, as they entered the stable yard, was audible enough, and reached the ears of poor Nelson. He rose, staggered into the yard, and over to the coachman, who had come down from the coach-box. Then, licking his hand as the man stooped down to caress him, he uttered a faint cry, and fell down at his feet. He was dead!

Need I say how we all mourned over poor Nelson—how we forgot his strange and surly ways in

this touching exhibition of love and fidelity? We buried him as reverently as Byron buried his dog, though! we wrote no misanthropic epitaph over his grave. But I have moralized over his life and death.

Assuredly, the dog is one of the greatest blessings in animal life that God has given to man. It is, I believe, the only creature that prefers man to its own species, loving him with a love that is utterly unselfish—a love that neglect will not weaken, that chastisement will not destroy.—*Cassell's Family Magazine*.

COMPANY MANNERS.

"Will you please sit down and wait a moment till mother comes?" said a little girl to two ladies who came to see her mother.

"And will you give me a glass of water, Martha?" asked one of the ladies; "I am very thirsty."

"With pleasure," answered Martha, and she presently came back with two goblets of water on a small waiter which she passed to both ladies.

"Oh, thank you," said the other lady, "you are very thoughtful."

"You are quite welcome," said Martha, very sweetly.

When Martha went out of the room one of the ladies said, "This little girl is one of the loveliest children I ever met. How sweet and obliging her manners are!"

Let us go into the next room and see. Martha took the waiter back to the dining-room.

"Me drink! me drink!" cried little Bobby, catching hold of his sister's dress and screwing up his rosy lips.

"Get out, Bob!" cried Martha; "go to Bridget."

"Don't speak so to your little brother," said Bridget.

"It is none of your business what I say," cried Martha, tossing back her head.

"Martha!" That is grandmother calling from the top of the stairs.

"What!" screamed Martha back.

"Please come here, dear," said grandma.

"I don't want to," muttered Martha.

She, however, dragged herself upstairs. Unwilling feet, you know, find it hard to climb.

"Martha" said grandma, "will you try to find my specs? I am pretty sure I left them in the dining-room."

"No, you didn't!" cried Martha, in a cross, contradictory tone; "you always lose them up here," and she rummaged around the chamber, tumbling things over like the north wind.

"No matter," said the dear old lady, seeing she would have much to do to put things to rights again; "no matter, Martha; they will come to hand," and she quietly put down the newspaper for bye-and-bye. Martha left her and went down stairs with a pout.

Oh dear, where are Martha's civil, obliging manners? Why, those are her *company* manners. She puts them on in the parlour, and leaves them off when she leaves the parlour. She wears them before visitors, and hangs them up when they are gone. You see she has no manners at home. She is cross and disobliging, and rude and selfish. She forgets that home is the *first* place to be polite in—in the kitchen as well as in the parlour. There is no spot in the house where good manners can be dispensed with.

God hath promised pardon to him that repenteth, but he hath not promised repentance to him that sinneth.

"The hope of the righteous shall be gladness; but the expectation of the wicked shall perish."—*Prov. x. 28*.

YOU AND I WALTZ.

Composed by GEORGE THORNE.

INTRODUCTION.

The first system of the introduction consists of two staves. The upper staff is in treble clef and the lower staff is in bass clef. The music is in 3/4 time. The first measure has a dynamic marking of 'f'. The melody in the treble clef starts with a quarter note, followed by a half note, and then a quarter note. The bass clef accompaniment consists of a steady eighth-note pattern.

The second system continues the introduction with two staves. The treble clef staff features a melody with a slur over the first two measures. The bass clef staff continues with the eighth-note accompaniment.

The third system of the introduction consists of two staves. The treble clef staff has a slur over the first two measures. The bass clef staff continues with the eighth-note accompaniment.

The fourth and final system of the introduction consists of two staves. The treble clef staff has a slur over the first two measures. The bass clef staff continues with the eighth-note accompaniment.



I and I Waltz.

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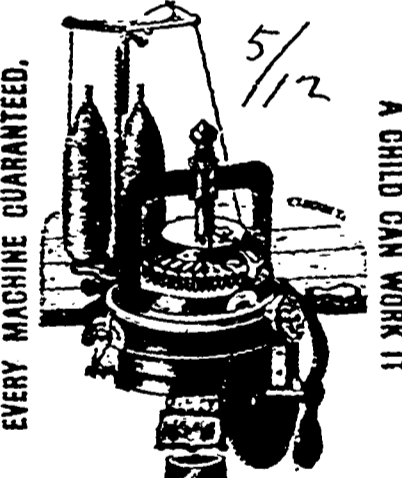
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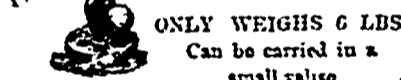
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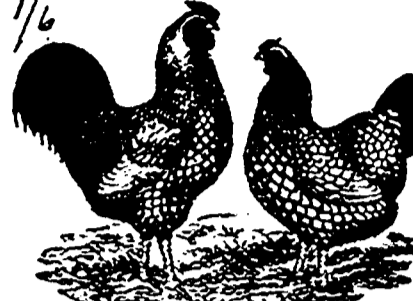
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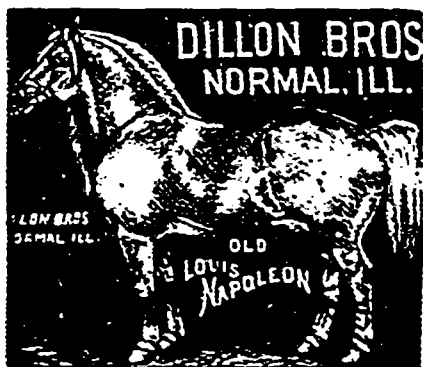
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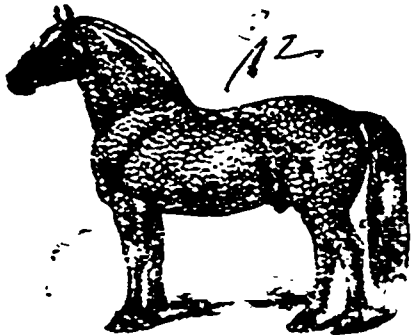
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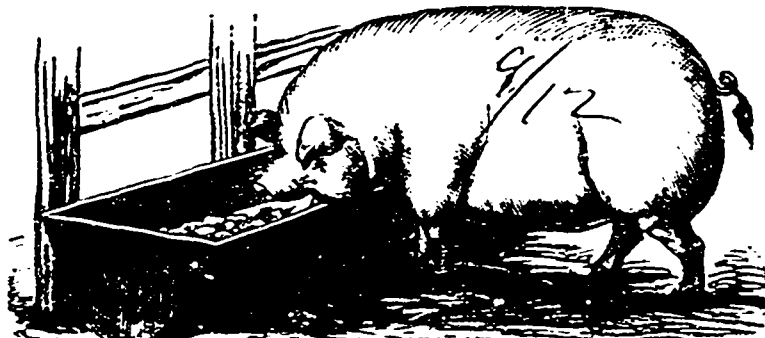
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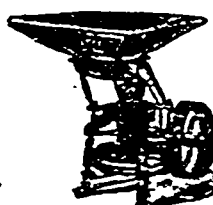


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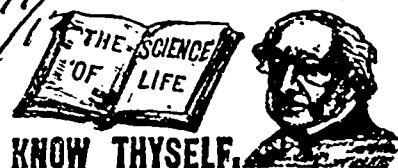
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