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THE RURAL CANADIAN.

Vol. III. No. 10.

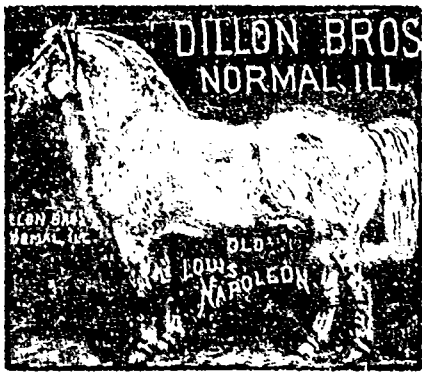
Toronto, October, 1884.

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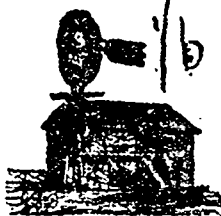
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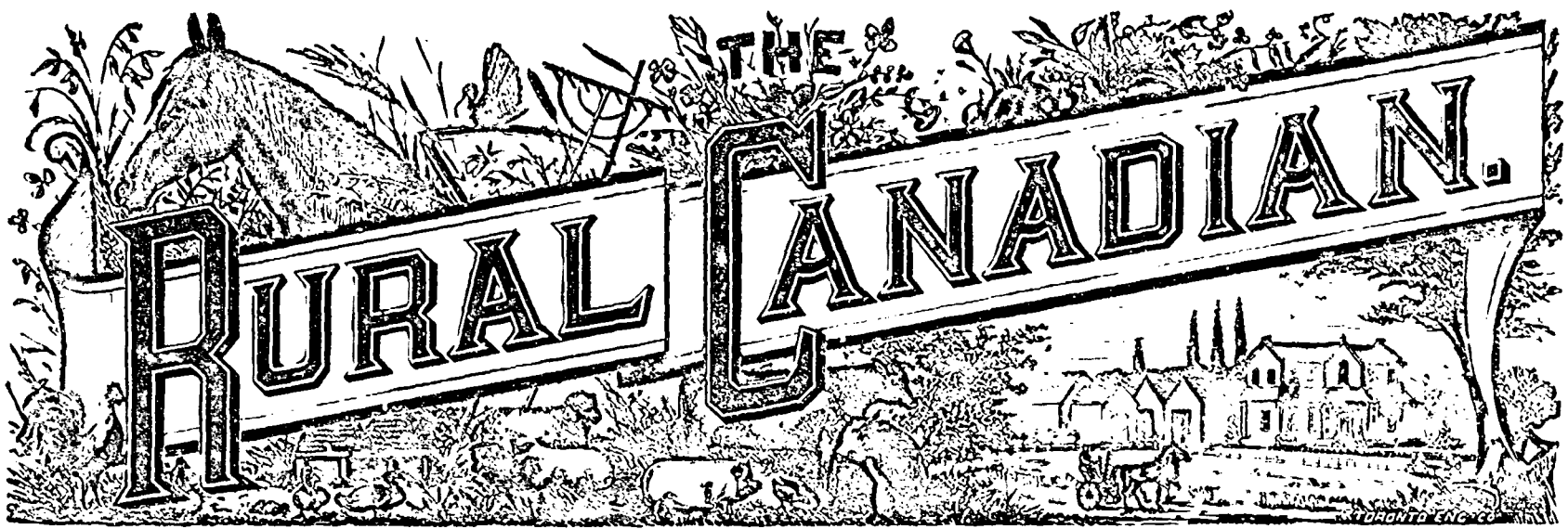
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Mrs. Mary Thompson, of Toronto, was afflicted with Tape Worms, 3 feet of which was removed by one bottle of Dr. Low's Worm Syrup.



Vol. III. No. 10.

Toronto, October, 1884.

\$1 per annum, in advance.

RURAL NOTES.

This year's crop of potatoes is one of the best for many years. The yield is large and the quality is excellent.

The corn crop has sustained some damage from the early frosts, but the bulk of it will no doubt mature in good condition. Large areas of it have been already cut and are secure from further injury. The latter part of the season has been, on the whole, very favourable for the corn.

Discussion of the old question if wheat turns to chess has been revived by a physician of Norfolk county sending to the *Farmers' Advocate* a head of wheat having a spikelet of real chess attached to it and said to have grown upon it. The suggestion has been made that it is only another case of the skilful use of "Spaulding's glue."

If we would improve grain by selection there is no better way than to select the heads, taking only those from the stools that send up the largest number of stalks, and then sow only the largest grains of these, otherwise there is no guarantee that plump grains may not come from short heads, or from plants that send up but a single stalk.

THERE are many people who like a mess of cabbage to whom the odour of cooking it is anything but savoury. Our own opinion is that it should be classed with the nuisances and so dealt with, but one who has tried the experiment says that a small piece of red pepper in the pot will effectually neutralize the cabbage odour. We give the recipe for what it is worth.

It is claimed that India will have a wheat surplus available for export this year of 50,000,000 bushels, but the statement is doubted in England. In the Australian Colonies, including New Zealand, the area under wheat was 8,672,785 acres and the product 45,000,000 bushels. The surplus is estimated at 22,000,000 bushels, of which about 14,000,000 has already been exported.

OPEN ditches should be thoroughly cleaned out in the fall, otherwise they will fail to serve their purpose in the spring when they are most needed to carry off the surface water. The grass and weeds that grow on their sides should be all removed, so as to leave a free course for the water. The crossing places of cattle should also be looked after, and every obstruction of whatever character carefully removed. A day spent in such work now may be the gaining of two or three days in spring-time.

In a test of butter producing capacity between the famous Jersey cow, Mary Anne of St. Lambert's, owned by Mr. Fuller, of Hamilton, and a Holstein cow owned in Iowa, the latter exceeded the former by a few ounces per week. This year another of Mr. Fuller's cows has been subjected to a very careful test, and it is found that she has exceeded last year's record by about two pounds. Mr. Fuller's herd of Jerseys is doubtless the best on the continent.

THE Provincial, District and Local fairs have kept farmers busy and interested during the past month. As usual those fairs were very successfully managed, and the results have been gratifying. To such members of the British Association as visited them no better evidence could be presented of the position our province has made for itself agriculturally, and glowing accounts will doubtless be carried to the mother country of what has been seen.

To what extent it is possible to increase the average production of crops by high culture and the use of fertilizers, no one can say. The editor of the *Rural New Yorker* has obtained records ranging from 524 to 1,391 bushels of potatoes per acre. The ground was enriched by a mixture of fertilizers only and no manure—the fertilizers including salt, lime, potash salts, ammonia salts, bone flour and in short every element of plant food. The experiments showed, however, that much depends on the variety of seed as well as on the use of manures and high cultivation.

A correspondent of the *Country Gentleman* thus states how he prevented cream from foaming while churning. "I had four gallons of cream, three days old, in earthen jars, put it into a room where the thermometer stood at eighty degrees. The milk when put into the churn was at sixty-five degrees, and the churn at sixty degrees. In fifteen minutes the butter was ready to be taken out of the churn, and as pretty yellow butter as I ever saw. This certainly pays for heating a room and having the milk at the right temperature. It overcomes the trouble of cream foaming in churning and having the butter hard to come.

A CORRESPONDENT of the *Ontario Horticulturist* undertakes to show that fruit-growing yields far larger profits per acre than grain-growing, and he takes wheat and strawberries for comparison. To cultivate an acre of wheat will cost, he computes, at the rate of \$28 per acre, and with a product of forty bushels per acre at an average price of \$1 per bushel the profit is \$12. On the other hand, to cultivate an acre of strawberries, he computes, will cost (including plants and

baskets) \$250, and with a product of 6,000 baskets per acre at an average price of eight cents the profit is \$230. Still it is not possible for every farmer to go into strawberry culture, and if it were possible it would not be prudent.

The present tendency in Great Britain is toward decreasing the acreage of wheat and increasing the acreage of pasture and the number of live stock. Thus in 1882 the area under wheat was 3,003,960 acres, while this year it is only 2,676,477, being a decrease of 327,483 acres, or about eleven per cent. On the other hand the number of cattle has increased from 5,807,491 in 1882 to 6,241,127 in 1884, or at the rate of seven and a-half per cent, and the number of sheep has increased from 24,319,768 to 26,037,217, or at the rate of seven per cent. The strong probability now is that the breadth sown with fall wheat will speedily fall, and that more and more of the land will be devoted to grazing purposes.

THE saying that "rich food makes rich milk" is only true in a limited sense. The distinguished authority, Sir John B. Lawes, in writing on this subject says: "Fat is increased by rich food, but breed is more potent than food, and no amount of food will produce in a Shorthorn as rich a milk as is produced in a Jersey or in an Ayrshire. The same law prevails both in plants and animals." Of course it is possible to increase the quantity and improve the quality of the milk by judicious feeding, but a cow that naturally gives milk low in the percentage of solids, albumenoids and fat, cannot be made to give rich milk by the process of feeding rich food. The only sure way of getting rich milk is, to select cows of the best dairy qualities and breed them to bulls out of the best dairy strains, and in so doing it is not necessary to disregard beef qualities.

In a report on the pear blight, based on experiments and observations made at the New York Agricultural Experiment Station, Mr. Sturtevant makes the following general statements: "The disease known as pear blight is infectious, and may be transmitted from one tree to another by inoculation. It is not confined to the pear but may attack other pomaceous fruits, as the apple, quince, English hawthorne, and June berry. It is more active, and progresses most rapidly upon young and succulent portions of the tree." He has discovered that under the microscope any bit of diseased tissue shows inconceivable myriads of minute bacteria, and he assumes that there can be no rational doubt of the bacteria being the cause of the disease. The next and most important question is How can the bacteria be destroyed and the vegetable life on which they prey be saved?

FARM AND FIELD

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

The subject of summer fallowing is one that well deserves to be carefully pondered by all intelligent tillers of the soil. Is fallowing founded on correct scientific principles? and does it pay? are questions that must force themselves on public attention in a utilitarian age like the present. In discussing this matter with farmers, I find in the minds of many a vague doubt as to the wisdom of summer fallowing, while some, a few, perhaps, to speak with caution, have arrived at the conclusion that the practice is a mistaken one, and have therefore abandoned it. For myself, I have no hesitation in saying that I am an anti-fallower. Naturally, therefore, I have some stiff arguments now and then with those who are in favour of this method of culture. Not long since, I was arguing the case with a shrewd and sensible man, a good practical farmer, and I said to him, "Choose an example of what you consider successful summer fallowing, and let us bring it to the test of figures." After a few moments' reflection, he instanced a field of eighteen acres which he thought had paid him well for the cost and trouble of the process. I took pencil and paper, and put down the various items of expense from his dictation, allowing current rates per acre for ploughing, and other operations, \$3 per acre were charged as rent or interest on capital invested in land, which will generally be admitted to be a fair average estimate. We found the total cost of that crop when marketed to be \$360, or just \$20 per acre. The yield was thirty bushels per acre, which at \$1 a bushel gave a profit of \$10 per acre for the two years occupied in fallowing and cropping, or \$5 per acre per annum. It should be said that the land was extra well worked, having been ploughed five times, and that neither labour nor expense were spared to secure the best results.

The foregoing can hardly be taken as a fair average case of summer fallowing, especially in regard to the yield, which was exceptionally good. It proves, among other things, the substantial correctness of the statement made editorially in a recent number of THE RURAL CANADIAN, to the effect that there is ordinarily no profit in growing wheat if the yield be less than twenty bushels per acre. In the instance just given less than twenty bushels per acre would have entailed downright loss, and it may safely be affirmed that summer fallowing is a rather hazardous experiment, since it involves a large outlay which can only be re-couped by a bountiful yield. On the occasion just referred to we not only subjected the practice of summer-fallowing to the test of figures; but did the same with a wheat crop supposed to be grown on a clover-ley, that is, a field which has been in clover (alone) for two seasons. It is immaterial to the calculation whether the second crop of clover be turned under or cut for seed. In either case, there is but one ploughing. We found the total cost of a wheat crop thus grown on the eighteen acres to be \$128.50, or a trifle less than \$7 per acre. This is a big difference in favour of the clover system as compared with summer-fallowing.

What are the arguments in favour of summer fallowing? 1st. "It rests the land." This is rather a funny plea in view of the fact that the land is disturbed and disquieted by the plough all summer long. But the idea, however, is that no crop is exacted from the soil, and that therefore its productive energies are allowed to rest. But the truth is, that those energies do not and will not rest, if there be any seed germs or root-buds in the soil that can be coaxed into growth.

It is the fight with this persistent disposition to produce every green thing in its season which keeps the fallower so hard at work all summer. The land gains in fertility somewhat by the burial in it of those plants which grow spontaneously, and which are converted into manure by the repeated operations of the plough. The case is not one of resting the land, but of giving it several small doses of green manure, which of course are beneficial to it. 2nd. The second and chief argument in favour of summer-fallowing is that "it kills the weeds." Most assuredly it does this, and with the number of ploughings given the eighteen-acre field already referred to, may be trusted to do it very effectually. But then in a good system of husbandry, like that described in last month's "Walks and Talks," there will be no weeds to kill. Our farms ought to be clean. Not to press that view, but taking the generality of land as we find it, dirty enough in all conscience, it is not necessary to go through such a frightfully toilsome process in order to kill weeds. "A more excellent way" was pointed out in the August issue of this journal. Weeds can be eradicated without sacrificing a year's yield of the land, and without the drudgery and expense of summer-fallowing. Do not object, cavil, or declare that "it can't be done," reader,—but make the experiment. It is not a costly or risky experiment, nor is it one that requires a long term of years to bring out the result. There are many experiments which the individual farmer can hardly be expected to make, and for which an Experimental Farm run at the public expense is needed, but this is not one of them.

There is a scientific as well as financial view of fallowing, which must not be overlooked. It is as well, perhaps, in talking over the matter with some farmers not to call it the "scientific" view, but that is what it is, all the same. Is it wise policy, does it accord with the laws of nature to keep land all through the summer in the condition to which we give the name of a "bare" fallow? Will this treatment increase the fertility of the soil? To all these queries, a decided "no" must be given. A "bare" fallow is exposed without protection to the rays of the sun, which liberates the ammonia and cause it to go off into thin air. Ammonia is the prime element of fertility. As the favourite food of plants, it is taken up by roots and absorbed by leaves. The decay of plants restores the ammonia they have consumed to the soil. Hence land on which there is something growing every year which dies and rots on the surface is all the time growing better, because there is a gain from the atmosphere added to what is found in the soil itself. It follows, therefore, that the true policy is to keep something growing in the soil all the time for the double purpose of shading the surface that the sun may not rob it of ammonia, and having a leafy growth to derive a portion of its nutriment from the atmosphere. The system of clovering is far superior to that of fallowing because of all plants, clover is the busiest and most efficient in collecting ammonia both from earth and air. Its long tap roots penetrate to a great depth especially in light, loose soils, and send off innumerable fibres in all directions. These act like so many minute pumps in bringing ammonia to the surface, while the leaves absorb the same valuable element of plant food from the atmosphere. Hence when clover matures and dies, as it does at the close of the second season of its growth, there is a valuable deposit of fertilizing material just where it is wanted by succeeding crops. On the clovering plan, land does not lie idle for one season that it may yield better the next; the labours of successive ploughing is avoided, weeds are killed just as effectually; and the soil is left in quite as good a condition, if not better, for a sowing of wheat, as it is after a course of fallowing. W. F. C.

DO NOT LET THE FARM RUN DOWN.

The fertility of the soil is the farmer's capital; on this depends largely his success or failure, and his great anxiety should be how best to keep it up to the highest point at the least expense. It is a well-known fact that it is much easier to keep it up as we go along, than after it has been allowed to run down to make spasmodic efforts to restore its former vigour. It does not pay to raise small crops of any kind; medium crops may just pay expenses, while that part of a large crop which is in excess of the medium crop is nearly all profit. Hence we know where to look for our profit, and study to devise the best means of enriching our lands at the least expense. There are several ways suggested. One man feeds stock; another plows clover under; another buys commercial fertilizers. The Western man uses up all the fertility of the soil, and then goes farther West to repeat the process. I have seen something of this system, having known lands in Central Illinois, which a few years ago produced 100 bushels of ears of corn, and which now produce eighteen bushels in a favourable season. They tell us that this soil will never wear out; I know of none that wears out quicker.

The same is the case in our Eastern States. The writer was on some New England farms, some months ago, that had once been the home of thrifty but improvident people. The life of the land was gone; families were separated, and there was a dull prospect for young men to begin life on such an impoverished farm; so these bright boys from the New England hill-sides seek other and more lucrative avocations. They are full of energy and vitality, inured to the rigour of the climate and rough, hard land. Agriculture cannot afford to sacrifice such men. If farmers wish to keep their sons at home, they must keep up the fertility of the soil.

Stock feeding is one of the most important branches of farming, and requires much judgment, care and attention. A prominent man said that to be successful with flowers you must love flowers; and so to be successful with stock you must love stock. The venerable John Johnston once told the writer that he owed his fortune and his reputation as a farmer to one pile of manure. While poor and in debt he bought an adjoining fifty acres on which there was an old barnyard containing an accumulation of twenty-three years' manure. He found it to be a mine of wealth. He applied it to his crops, which in turn gave great returns, and this not only gave him notoriety as a good cultivator, but gave him credit with moneyed men, who freely tendered him all the funds he desired to buy stock with. After securing an immense crop of corn, he fed it to stock and made another great quantity of valuable manure, and so on, year after year. Mr. Johnston has fed thousands of sheep and vast numbers of cattle. It has been stated that in eighteen years of sheep feeding, buying in the fall and selling in the winter or spring, he never but once failed in getting pay for his feed and a handsome profit on the investment. This shows that his judgment must have been superior, and that his stock had his personal and undivided attention.

A wealthy stock farmer in Pennsylvania once told the writer that one drove of cattle will half feed the next; meaning that by applying the manure from one lot of cattle to the ground intended for corn, the crop would be much larger, and that this increased yield would cost almost nothing, while the extra burden of stalks would certainly make the increase a donation year after year. After the farm has become rich, it costs almost nothing to feed stock, as they will live on the surplus. I believe it costs thirty cents per

bushel to raise corn, when you raise only fifty bushels of ears to the acre, but when 150 bushels are raised, the cost is reduced to less than ten cents per bushel.—*Country Gentleman.*

FARM FEWER ACRES.

With each year's experience I am better satisfied to farm a fewer number of acres, thoroughly convinced that I can make more money, make it easier, keep my farm in a much better condition by farming a less number of acres and doing the work more thoroughly.

I find the larger crops per acre I can raise the less they cost me per bushel, and I find the proportion in this respect is so much that it makes my farming far more profitable.

And this is not the only advantage. I am saved a considerable amount of worry and anxiety not only in trying to sow or plant a large crop, but also in trying to plan how to properly cultivate and harvest the crop. I can push my work instead of being continually crowded with more than I can possibly do and do well. I used to think that I could easily cultivate and harvest all I could put in, and so I could, after a fashion, but the cultivation was harder work and the harvesting no better, while the profits were not always as satisfactory as I should like.

Experience has taught me that it is far more profitable to take more time to plow the land; ploughing deeper and more thorough; harrowing and rolling until the soil is in a good condition, before seeding, and in this way make the after-cultivation much easier.

Then in the case of cultivated crops such as corn, beans, potatoes and garden truck, I find that if I am able to thoroughly cultivate so as to not only keep down the weeds but also to keep the soil well stirred as often as possible, that not only is the yield larger and more profitable, but the labour of harvesting is made much easier and pleasanter.

Any one who has been obliged to gather or cut up corn among a crop of cockle burrs, dig potatoes or mangolds out of a heavy growth of weeds, or hunt up the vines in the garden among the weeds and grass, knows the task is anything but a pleasant one. Either of these tasks are work, and it can be made far more easy and pleasant if the cultivation has been such as to keep them clean. While at the same time in keeping down these pests or hindrances, to the work of harvesting, we materially increase the yield of the crops.

Then another advantage I find is that I can keep up the fertility of the farm much better, and in doing this I have learned another fact: that if I can keep my soil rich; can plant or sow my crops at the proper time and cultivate thoroughly, I am in a measure sure of at least a reasonable yield, even if the season is not the most favourable.

I am convinced that a great part of our failures are the result of our own greediness in trying to do and get too much with too little effort of our own. There is too much Providence farming. We plant a large amount in a slipshod manner, half cultivate, and then expect Providence to give us a good crop, and if it fails, cry out, "Well, that is always my luck!"

There is no luck about it, simply our own greediness and selfishness in expecting too much from our careless work.

Too many of us do not stop to count the difference between a small yield and a large one. When we all get to doing this we will have less acreage planted, more thorough preparation of soil before planting, considerably more and better cultivation, accompanied by a perceptible increase in the yield as well as the profit. N. J. S.

GOD'S FINANCIAL SYSTEM.

One tenth of ripened grain,
One tenth of tree and vine;
One tenth of all the yield
From ten tenths' rain and shine.

One tenth of lowing herds
That brows on hill and plain;
One tenth of bleating flocks,
For ten tenths' shine and rain.

One tenth of all increase
From counting-room and mart,
One tenth that science yields,
One tenth of every art.

One tenth of loom and press,
One tenth of mill and mine;
One tenth of every craft
Wrought out by gifts of Thine.

One tenth of glowing words
That golden guineas hold;
One tenth of written thoughts
That turn to shining gold.

One tenth! and dost Thou, Lord,
But ask this meagre loan,
When all the earth is Thine,
And all we have Thine own.

HINTS FOR FARMERS.

See that good insurance is on the farm buildings. Keep out the cold from all the barns, stables, and the house, by banking with earth, manure, or even snow; double windows are a great saving in food and fuel. It is a mistake to think that severe exposure makes animals hardy; they are far better off under cover during storms. Plaster sprinkled on the stable floor will aid in keeping the air free from bad odours, and save valuable materials that would otherwise escape. Use the curry-comb and brush freely; they will help to keep horses and cattle in a healthy condition. Growing animals need comparatively more food than those fully grown; their future size and health depend largely upon present care. Water at the freezing point is not so healthful as warmer water, and requires extra food consumed to heat it in the animal system. A shivering calf appeals to the pocket as well as to the sympathy of its owner. The hen with warm feed and a comfortable house will pay for her keeping; while one with no home and little to eat will be wintered, if she lives through, at a loss. Small matters make up the sum of all comforts, and constant attention to them brings a great reward. Every farmer should be confirmed in the habit of looking after the little things.

KEEPING POTATOES.

The most frequent cause of rotting of potatoes in pits or cellars is putting them away before they are thoroughly dry and well ripened. The safest way to manage them is to cover them from the sun while digging, as the heating is injurious. Then when well dried in the field, remove them to a dry, airy barn floor, and scatter them on a straw bed a few inches thick, and air them thoroughly. If the doors are opened for this purpose, the tubers must be kept from the light by a covering of straw. When it is dangerous to keep them longer in this way, they may be removed to the cellar and kept in barrels or bins, with ventilating holes or spaces made in them. Potatoes thus cured will not sprout readily until the spring arrives.

An Ohio farmer, who lately took pains to carefully watch the movements of a large flock of blackbirds at work in his cornfields, discovered that instead of eating the corn the birds were industriously hunting for the corn-worm. In every case where he had examined an ear on which a blackbird had worked he found marks of the worm, but no worm. This he concluded was strong circumstantial evidence that the birds were doing him almost invaluable service instead of an injury.

HOUSEHOLD HINTS.

A slop hole at the back door will make enough doctor's bills to pay for draining the whole farm.

GOLDEN-ROD and purple asters are now the fashionable flowers for personal as well as household adornment.

A good way to arrange fruit in a dish for an ornamental piece is to set a glass tumbler in the centre of the dish, around and over it put a thick layer of moss, then not nearly so much fruit will be required, and it can be arranged very handsomely.

TOMATOES cut in thick slices and baked in a dripping pan make a most agreeable garnish. Sprinkle pepper and salt and fine bread crumbs over each slice, and in the space between the slices put little lumps of butter. Bake till tender, and serve hot on the platter with meat.

MILK, cream, and butter should all be kept as low as sixty-two degrees, at or below which point, if ever, carbonic acid gas develops. With pure food, cows rightly treated, with clean vessels and pure air, less difficulty will be experienced in churning than without such precautions.

THE soil for raising house-plants should be composed of about two-thirds good garden soil, and the rest sand. It must be kept light and loose about the roots, and the plants watered only as they appear to need it. I have remarkable success in raising house-plants and this is the secret of my method.

ONE of the prettiest ornaments for a shelf is a square or oblong glass with bevelled edges. On this glass paint a landscape. A snow scene is particularly adapted for this. A glass ten inches high by eight wide is a good size. This may be placed upon an easel when it is done, or may be glued to a plush panel, which can be hung on the wall.

You can steam oysters at home without much trouble. Get a wire basket, such as has been used for flowers will do very well, fill it with oysters in the shell, and immerse in a vessel of boiling water, which is deep enough to completely cover the basket of oysters. The oysters are done almost immediately. They must be opened into a hot dish where there is melted butter, pepper and salt. You may add broken crackers if you choose. The oysters should not stand, but should be eaten at once.

DAINTY and serviceable aprons are made of the darned net, which has been and is so popular a material for dress trimmings and for pillowshams. A pretty apron is made of the darned net, with a deep ruffle, with the pattern darned in. The bottom and top of the ruffle should both be finished with scallops, and then the ruffle needs no heading, and is easily put on. Above the ruffle and up the sides of the apron the pattern should also be worked. One or two pockets may be put on; one gives a little jauntier appearance to the apron. If only one is put on, lace it on the left side.

To whiten flannel, made yellow by age, dissolve one and one-half pounds of white soap in fifty pounds of soft water, and also two-thirds of an ounce of spirits of ammonia. Immerse the flannel, stir well around for a short time, and Wash in pure water. When black or navy blue linens are washed, soap should not be used. Take instead two potatoes grated into tepid soft water (after having them washed and peeled,) into which a teaspoonful of ammonia has been put. Wash the linen with this, and rinse them in cold blue water. They will need no starch, and should be dried and ironed on the wrong side. An infusion of hay will keep the natural colour in buff linens, and an infusion of bran will do the same for brown linens and prints.

HORSES AND CATTLE.

A CHAPTER ON BULLS.

That there is oftentimes more merit in a bull for breeding purposes than is disclosed by their outlines, by touch and shape and apparent quality, is well illustrated by the history of Lord Wilton, the grand Hereford bull that sold the other day at the Carwardine sale in England for 3,800 gs.—nearly \$20,000. Mr. Houseman, in notes on the Carwardine herd, thus speaks of him in *Bell's Messenger* :—

“Lord Wilton himself, bred by the late Mr. William Tudge, was considered a failure as a show bull. At Kilburn he was exhibited by Mr. Lewis Loyd, of Monks Orchard, in Surrey, who had used him without discovering his extraordinary value, although the stock left at Monks Orchard afterwards showed the results of his influence, and won a high reputation and the Smithfield Club's prizes at Islington. The Kilburn judges could not see anything beyond a commendation to be due to Lord Wilton, and bracketed him with Mr. Price's Horace second, exhibited by Mr. Thomas, as worthy of that honour, nor was their judgment called in question. Lord Wilton then, although far advanced in his sixth year, was not the bull he is now, and his hereditary power was not written on his skin. The judges could but act upon the evidences of their senses of sight and touch. Mr. Carwardine somehow saw in the barely commended animal the bull that he thought would suit his purpose; so he bought him; and results, both in the show-yard and in the herd, have emphatically justified his choice. Anxiety was at that show a first winner. To part with Anxiety in the prime of life and in all his show-yard glory, and to substitute Lord Wilton, was one of those acts that suggest that

‘Great wits are sure to madness near allied.’

Outsiders might be pardoned for thinking it madness: and the buyer of Anxiety showed perhaps as shrewd a judgment as the buyer of Lord Wilton, for Anxiety, too, has made his mark in America as well as at Stocktonbury.”

The show-yard test is not an infallible one by any means, and those who rely too much upon it and assume to regard breeding and pedigree as of little moment, make a grand mistake. And while speaking of mistakes in breeding, there is none more prolific of disappointment than the use of young and untried sires. A young bull of shapely form and fine individual promise every way seems so much more attractive that he is selected, and in preference to an old tried sire, but too often the expectations based upon him are never realized. There is more wisdom and safety in the selection of sires of proved breeding excellence. We are speaking now of no particular breed. Lord Wilton is well advanced in years; and so was Anxiety, referred to by Mr. Housman, and which we believe was the bull with which our friend C. M. Culbertson made so much “trouble” (for other people) in the show ring. Mr. Culbertson's Grove third, for which he paid 810 gs., or over \$4,000, was ten years old, but he was the sire of Rudolph and a host of other good ones. There is wisdom in giving the preference to such bulls as have proved their excellence as sires, no matter what their age, and danger, as many a breeder has found to his sorrow, in bringing in a youngster who could only offer a promise of what he might be able to accomplish.—*Breeders' Gazette*.

SHAPE OF THE HORSE'S BACK.

The *London Live Stock Journal*, in an article relating to the selection of a horse for the work he is expected to perform, after stating the results of many observations on horses, remarks that it is the arch of a bridge, which, from its structure, can bear weight placed upon it, whereas,

an inverted arch would fall to pieces, or would withstand a far less pressure. It has been observed that low-backed, or rather hollow-backed horses, working in harness, kept their condition, while those with high backs lost flesh. Persons of not very inquiring or observant dispositions would probably attribute this to the fact that the former were of more hardy constitution than the latter, but this would be a false conclusion. It is owing entirely to the curvature of the back, for a horse which can draw a weight was least able to bear a weight upon its back, while the horse unable to bear the strain of draft could beat the other any day in carrying a weight. The line of the vertebra indicates the sort of work for which the horse is fitted. If it is high the weight must be on the top to press it together; if low, the pressure must be from below for the same reason. A downward curvature is, therefore, the best form of spine for a draft horse.

JUDGING CALVES.

Nothing, perhaps, more severely tries the skill of a breeder, or the extent of his observation, than his estimates of young stock at very early ages, in connection with the after-results which justify or falsify those estimates. Many men who can judge fat beasts cannot rightly judge animals in a lean state; but there are far more men who can judge animals fat or lean, and yet hit immensely wide of the mark in their guesses upon the future merit of foals, and other infants of the farm. Their difficulty, however, often proceeds from ignorance of family antecedents. The written or printed particulars of family history they may know, in case of pedigree cattle, but until they acquire a sight and touch familiarity with their stock, generation after generation, they can not always tell the signs put out in an animal's early life analogous to the appearances of the bud of a new or unknown flower. As the practised florist can easily discern in the buds of his old favourites the best and worst flowers of the forthcoming season, so the practical breeder, who has taken pains to ponder over the peculiarities of each calf, and to mark and remember the course of development, knows the meaning of each characteristic felt by the hand or perceived by the eye, and of each change in the course of growth. This is sometimes remarkable in breeders of long-established herds of cattle, who can form their opinions upon calves with the greatest precision, and pronounce those opinions with confidence, when strangers would be disposed to entertain far different expectations, more favourable, or less so, than those of the men whose forecasts are mirrored retrospects. The accuracy of these forecasts is necessarily endangered whenever fresh blood is introduced, as the results of new combinations, or the predominance of new power greater than the old, may alter the appearances presented at the different stages of growth. We have known a sire, whose daughters at maturity were much more grand massive, and excellent than the dams of the herd into which he was brought, cause great disappointment when his first year's heifers began to grow out from calfhood. As they developed, his true merit was discovered. He was enlarging the scale and substance of the herd, and the early and middle stages of growth aroused needless alarm of ultimate coarseness. On the other hand, the process of reduction of a coarse herd to neater symmetry may cause miscalculations and misgivings, while the effects of the change are new to the owner of the cattle. Some part of the difficulty of forming accurate estimates of young and growing stock has been felt by judges of cattle of immature ages at fairs or exhibitions; but as judges are usually selected from among men of wide experience, probability is

commonly in favour of the appointed judge knowing most of the types likely to be presented to him, and in all stages of life and growth. The man whose knowledge is all homespun is scarcely fit to exercise judicial functions in public, however skilful he may be in the use of the material found within the limits of his own pasture-ground. His knowledge is good within a certain radius, but that radius is too small.—*Live Stock Journal*.

CRUELTY TO ANIMALS.

The cruel and inhuman treatment of horses and other animals under the prevalent popular methods of curing diseases is amazing and deplorable. In some cases it surpasses the barbarity of savages. Indeed those uncivilized races who possess horses exhibit far more humanity in their care and treatment of them than the average white man. The Arabs, and even our own native Arabs, the Indians, have an affection for their animals and treat them with a tenderness that is remarkable as compared with the civilized mode. A case in point, related in the columns of the *Country Gentleman*, is well worthy of notice as a frightful example. A man supposed his horse to be troubled with either ringbone or navicular disease. He “goe a ball of concentrated lye, (caustic potash,) shaved the hair from two places on each side of the foot, and bound the wet caustic alkali on the skin for ten days. He then procured ‘toad frogs,’ chopped them finely, and bound these over the sores. The consequence was that the foot was terribly swollen, and had two large sores upon it, and could not be put to the ground for several weeks.” The veterinary surgeon to whom the case was afterwards submitted thought “the chances of the horse's recovery were about fifteen per cent.” When we consider that concentrated lye will wholly destroy the wood of a pail in which it is kept for twenty-four hours only, the aggregate torture suffered by this poor beast during 240 hours while this terrible caustic was applied to its skin can hardly be realized. Nothing need be said in regard to the unhappy “toad frogs” further than to remark the utter uselessness of such an application to cure such diseases as ringbone and navicular disease. This case is so much the more remarkable, as the person implicated seems to have been a reader of the excellent agricultural journal mentioned.

The *Morgan horses*, so popular thirty years ago, seem to be coming to the front again. Their principal use has been as roadsters. They are of medium size, well-formed, docile, spirited, have good bottom, and are long-lived.

SUNSHINE IN STABLES.

Is your stable light and cheerful, or dark and dismal? “It is pleasant to behold the sun.” There is no more cruel punishment than to be immured in a dark dungeon. This should be thought of when arranging stables and pens for farm animals, but it appears to be too often lost sight of, and stables for both horses and cattle are too dark for the well-being of the animal. The eyes of horses are not infrequently injured by being kept in dark stables. Our houses as a rule are much better lighted than our stables, yet we all know how uncomfortable it is to go out of a well lighted house into the glare of sun-light if there is snow on the ground. The effect is even worse on our horses and cows which are generally kept in much darker places than we ourselves. Aside from any special effect on the eyes, light and sunshine in stables are of vast importance to the general health and thrift of farm stock, and they should always be constructed with a view to admitting as much as possible of both. In old barns and stables where the stock quarters

are dark (and where they are dark they are usually damp) it will be a good idea to put in some new windows to admit light and sunshine into them. The present is a good time to attend to this, and the considerate person will see to it.

BIG ISLAND STOCK FARM.

Decided progress has been made in the breeding of stock during the last ten years, but with a clear probability of low prices for wheat in the future, the farmers of the midland district are called upon to use their best efforts in improving their stock yards. The great drawback to the business is the length of the winter, and for this reason the object must be to raise cattle that mature early. The old style of animal had to be kept through three winters to make four or five hundred pounds of what was called beef. Keeping such stock as that means a man struggling with poverty, and poverty a trifle the strongest. As to which is the best breed every farmer has his own views, but the Polled Angus appear to meet many of the chief points. A herd of nineteen head of these cattle were shipped on Friday from the Big Island stock farm for the exhibitions at Toronto and Ottawa. A noticeable animal was the two year old bull, King of Trumps, (2895) weighing over 1,700 lbs. Two cows, Wanton, and Caroline 2nd of Kildrummy, the former weighing 1,445 lbs., and the latter, 1,418 lbs., are finely formed. In the young cattle the advantages of breed were strikingly shown. Coquette of Big Island, a pretty little heifer of one year and seven months, weighs 997 lbs.; Duchess of Verulam, one year and eight months, 917 lbs., and the yearling bull Harvey turns the scales at 1,225 lbs. And they have not been fed with the object of showing them as fat cattle, merely sufficient food to keep them in fair growing condition. These weights and ages clearly show the great returns to be gained by a little attention to the stock yard.—*Independent*.

SOILING CATTLE.

It is a matter of surprise to us that the soiling of cattle is not universally practiced in portions of the country where the farms are small, and where the dairying is the most profitable branch of the farming business that can be pursued within reach of our large cities. There was a time when it appeared to have taken an active start, but whether it has increased or even maintained the footing then shown, we really have no means of knowing. If we can believe the statements of those who have experimented with this system of dairying, it clearly showed that no other branch of farming paid so handsomely. "Soiling" is the feeding of cattle in their stalls or yard, instead of grazing them in the open field, allowing them to roam at will and destroying a large part of the pasturage, while to a great extent the manure was wasted. It is said that the principal drawback was the increase of labour which the system required, cutting and hauling the grass to the cattle three or four times a day. While we admit that the labour is increased as well as the expense connected therewith, yet at the same time the saving of manure is a strong point on the other side; and the driving of cattle to and from the pastures is another; and the saving of at least one-half the land required for pasture is the strongest of all, and together would far more than over-balance this one of labour.

Nevertheless, whatever the reason may be, it is not in our power to say at this writing that we know of a single instance in which soiling is followed by any farmer within our knowledge. In England, among small farms, and especially in France, where there are comparatively few large

farms, soiling is adopted generally as a principle as the most profitable mode in which at least dairy cattle can be fed.—*Germantown Telegraph*.

"HORSE'S PETITION."

The following was given by Farmer Crocker as the "Horse's Petition," some lines which he learned when a boy. We print it, recommending all the boys to learn it who expect to have anything to do with horses:

Going down hill, whip me not;
Going up hill, hurry me not;
On level road, spare me not;
Loose in stable, forget me not;
Of hay and corn, rob me not;
Of clear water, stint me not;
Of soft, dry bed, deprive me not;
Tired and hot, wash me not;
If sick or cold, chill me not;
With sponge and brush, neglect me not;
With bits and reins, O jerk me not;
With check and martingale, gag me not;
With blinkers, blind me not;
When you are angry strike me not;
And a more faithful friend you will find not.

Your horses have hard work at the plow. Take good care of them. First, give them grain regularly. Dust will gather under the collars while plowing. See that the breasts and shoulders are washed, to prevent chafing.

Unthinking farmers will sometimes place a colt or young horse by the side of a horse of more mature years, and expect it to do an equal amount of work without injury. Such a thing is not only cruel, but unwise. Many promising horses have been ruined by such treatment.

The Prince Edward Island *Agriculturist* has a series of articles on Horse Hygienics, which, however good in themselves, seem like casting pearls before swine. So long as owners of animals are themselves dyspeptic, they cannot be prevented from cultivating the same disease in their beasts. Therefore, we judge that the proper method would be to change the men first, preparatory to a reformation in the treatment of beasts.—*Orillia Packet*.

FATTENING STEERS.

Corn and oats ground together make an excellent ration for fattening steers. At first give equal number of bushels of each, ground together, which will give most of the bulk in oats. Then, as the animal gains, increase the proportion of corn and add oilcake meal. One pound of this mixture for every 100 pounds weight of the animal is sufficient, and it should be given in two feeds. The increased feeding towards the last will consist in stronger feed rather than greater bulk.

Do not be in too much of a hurry to break the colt.

Large, snugly-built horses always sell for a big price.

Trotters are not suited to the farm. Farmers do not want them and farmers' boys want them still less.

The loss by bat-flies in England is estimated at \$5 per head, of stock, and it is also said that hides are lessened in value from \$2 to \$3 each by the holes cut in them by these pests, (warble flies.)

Horses were never higher unless in war time. The wear and tear of city use tells on them. It will be so. Hurry and big loads empty the markets. Europe wants all our active large horses. They cannot afford to raise them. Let the good mares help pay for the farm and the taxes. Do not patronize the cheap stallions unless you want to rear cheap horses. There is more difference between one and two hundred dollars than \$5 and \$20.

INTERESTING STATISTICS

Just now unusual public interest is felt in relation to the animals of the farm, and it may therefore be considered an opportune time to give the following statement of the principal live stock possessed by the several countries enumerated, with the acreage under cultivation in each case. The figures are taken from official sources, the last available returns being quoted in every instance; but it should be observed that they are not all brought down to the same period, for the simple reason that an agricultural census is not taken annually in all cases:

Acreage under cultivation:—Crops, bare, fallow and grass, English statute acres: Russia-in-Europe, 804,521,350; Norway, 2,795,052; Sweden, 12,189,804; Denmark, 6,183,524; Germany, 64,549,785; Holland, 4,985,820; Belgium, 5,506,020; France, 61,244,747; Italy, 27,416,780; Austria proper, (exclusive of Hungary,) 45,727,596; Hungary, 27,879,247; United States, 178,027,969; England, 24,795,059; Wales, 2,799,994; Scotland, 4,790,082; Ireland, 15,151,280.

Horses: Russia-in-Europe, 16,160,000; Norway, 151,908; Sweden, 459,093; Denmark, 847,561; Germany, 3,952,281; Holland, 271,072; Belgium, 271,974; France, 2,848,800; Italy, 657,544; Austria proper, (exclusive of Hungary,) 1,463,233; Hungary, 1,819,508; United States, 10,838,111; England, 1,083,579; Wales, 188,819; Scotland, 188,198; Ireland, 478,912.

Cattle: Russia-in-Europe, 22,770,000; Norway, 1,016,617; Sweden, 2,191,636; Denmark, 1,470,078; Germany, 15,776,702; Holland, 1,431,406; Belgium, 1,382,815; France, 11,446,259; Italy, 4,783,232; Austria proper, (exclusive of Hungary,) 8,584,077; Hungary, 4,597,543; United States, 41,171,762; England, 4,216,625; Wales, 651,836; Scotland, 2,094,315; Ireland, 4,096,021.

Sheep and lambs: Russia-in-Europe, 48,192,000; Norway, 1,686,806; Sweden, 1,377,886; Denmark, 1,548,613; Germany, 24,999,406; Holland, 792,450; Belgium, 365,400; France, 22,516,084; Italy, 8,596,108; Austria proper, (exclusive of Hungary,) 8,841,840; Hungary, 9,252,123; United States, 49,287,291; England, 15,594,660; Wales, 2,581,250; Scotland, 6,892,861; Ireland, 3,219,098.

Pigs: Russia-in-Europe, 9,800,000; Norway, 101,020; Sweden, 419,258; Denmark, 527,417; Germany, 7,124,088; Holland, 376,878; Belgium, 646,375; France, 5,565,720; Italy, 1,163,916; Austria proper, (exclusive of Hungary,) 2,721,541; Hungary, 4,443,279; United States, 43,270,086; England, 2,231,295; Wales, 229,964; Scotland, 156,598; Ireland, 1,351,990.

Goats: Norway, 322,861; Sweden, 102,444; Germany, 2,380,002; Holland, 151,567; Belgium, 248,755; France, 1,522,360; Italy, 2,016,807; Austria proper, (exclusive of Hungary,) 1,006,675; Hungary, 236,352; Ireland, 262,092. Reindeer: Norway, 96,567. Mules: France, 273,819; Italy, 293,868; Austria proper, (exclusive of Hungary,) 12,710; United States, 1,871,079; Ireland, 82,502. Asses: France, 892,859.

PREMIUMS AWARDED DILLON BROTHERS, AT ILLINOIS STATE FAIR IN 1884.

Norman Stallion, 4 years old, 1st premium.
" " 3 " " 1st "
" " 2 " " 1st "
" " 1 " " 1st "
Sucking horse colt, 1st premium.
Norman mare, 4 years old, 1st premium.
" " 3 " " 1st "
" " 2 " " 2nd "
" " 1 " " 1st "
Sucking mare colt, 1st premium.
Sweepstake premium for best Norman stallion of any age, \$100.
Sweepstake premium for best Norman mare of any age, \$50.

SHEEP AND SWINE.

THE LINCOLN SHEEP.

This is the largest and heaviest of all the breeds; in one instance a yearling dressed seventy-one pounds per quarter, a two year old, ninety-one pounds, and one three years old, ninety-six and a half pounds per quarter; and in another case thirty lambs, (wethers), fourteen months old, dressed 140 pounds each. The fleece is also very heavy, as from fourteen months old lambs have been taken clips weighing from ten to twenty-six pounds of wool, and in another case from several score of them, fleeces weighing fourteen pounds each, of washed wool, which is long and lustrous, fully nine inches, or over. The old breed are about extinct, their home was on the low lands of Lincolnshire, England, they were coarse and large, and with a long, straggling fleece, with much yolk, were slow feeders, but had delicious meat; juicy, good flavour, fine grained, and not too fat outside, though their habit was to lay on plenty of fat inside.

This promising breed was crossed by improved Leicester rams, after Mr. Bakewell made the latter famous, and from 1862 to 1870 were very prominent at English shows, being given a separate class in the latter year, and have become very popular for producing market sheep, for crossing, and for their wool. But they require very good and rich land, the best care, and are most suited to a high system of farming, with its attendant heavy root and green fodder crops. There are a few flocks of this breed in Canada, and the United States.

THE SHROPSHIRE DOWN.

This well-known breed in Canada, sprung from the old Morfe Common, and the Cotswold, before and after the latter's improvement. Morfe Common, (a tract of 600,000 acres in Shropshire,) were originally horned, with black or mottled faces and legs, hardy and active, as large as the Southdown, but not compact, thrive on poor pasture, and yielded a very fine fleece of two pounds, and dressed nine to thirteen pounds per quarter. Now, the Shropshire is hornless, face and legs dark grey or spotted, thick neck, head fine, rather small and good shape, well set on, and neat ears, back straight, strong boned clean legs, body round, and they retain their early good qualities, beside quickly fattening into a carcass, at two years old, of eighty to 120 pounds of very excellent meat, which brings among the top prices and is in great demand. The ewes are prolific and good mothers. They have a close fleece of long shining wool, about seven pounds washed, and are well adapted to farms where their chief living will be got at pasture.

There are a number of flocks of this breed in Canada, and good rams can be had from \$40 to \$150, though they go to much higher prices in England.

OXFORD DOWN.

This sheep has risen rapidly into favour in England, as it was only given a separate class in 1862, at the fairs. It resulted from a cross of a Cotswold ram on a Hampshire Down ewe, in 1830, by Mr. Turyham, and some other farmers, in Hampshire. The produce resembled the Cotswold in fleece but finer, and size, and was heavier than the dam, and by great and steady care in selection, the good points of the first cross, (no further has been made) have been retained. They are profitable in mixed farming, are hardy, not subject to disease common to others on the same lands in England; they will weigh at fourteen months, seventy five to ninety pounds dressed, and give seven to nine pounds of wool in ready demand; but, of course, by extra feeding, these weights are much improved, as they have

weighed at two years, over three hundred pounds alive, and ram's first fleeces over twenty pounds. They have a round body on short legs, have dark legs and faces, a tuft of wool on the forehead, a thick, partly curly fleece, and their meat is thought by some, when young, to be superior to Southdown.

Among the prominent breeders in England are Messrs. Albert Brassey, Charles and J. and F. Howard, Frederick Street, John Treadwell, and George Adams, of these Mr. Treadwell, of Aylesbury, is the foremost, a prize winner for many years past. This breed is coming into favour in Canada, chiefly in Ontario, where, no doubt good rams can be had at moderate prices.

HAMPSHIRE DOWNS.

This breed sprang from a cross, made early in this century, between a Southdown ram and a horned white faced sheep of Hampshire, which was hardy and large, with large head and nose. Now the breed is hornless, has black faces, compact frame, straight and broad back, round body on short legs, and the flesh is juicy, good flavour and good proportions of lean and fat. They mature early, fatten rapidly, and the lambs are large, at one year old running up to eighty-five or 100 pounds. The fleece is from six to eight pounds of combing wool, not as fine though as the Southdown.

THE DORSET

is a very old breed of the South of England, noted for its fecundity (and breeding in early season), there being many twins and triplets, a consideration where only market lambs are required, and the meat sells at high price. They are hardy, quiet and easily handled, mature early, to an average of 100 pounds dressed, at two years; the fleece is heavy and close giving five or six pounds of soft, clean, combing wool. Both sexes are horned, they have full, deep bodies, longish legs, though light boned, white legs and faces, the latter long and broad, with a tuft of forehead wool, and black muzzle, and we should think would prove valuable here when kept near large cities and towns, though, perhaps requiring extra care for early lambs.

A GOOD PIG.

What should it be like? Well, it should have a broad and deep body, fine bones, short and fine snout, short legs, small, fine soft, silky ears, well set on the head, and leaning a little forward, but not falling over. The head set close to the shoulders, broad and deep cheeks, the ribs should be well arched, thus giving a flat broad back, with the muscle on each side highly developed, as it is choice meat. The length, in proportion to the breadth, though a refined pig looks shorter than it is, from its great breadth, but it has as many bones in it as the "razor-back" breed. The nearer a pig fills a rectangular frame the nearer it is to perfection, and you may easily test one by laying a straight stick along the back, and along the hams, shoulders and sides, and see if it touches pretty well all along.

Now, why should it have these points named? Well, the broad and deep body give the greatest amount of choicest meat; the fine bones, snout, and legs, reduce the offal and thus increase the value; the soft fine ears show good breeding, and leaning forward a quiet disposition (a thick heavy ear shows coarseness, and an upright one is a sign of an uneasy temper).

The head set close to the body also reduces the amount of second quality meat, and the broad, deep cheeks are equal to the hams in quality, and the arched ribs provide plenty of room for lungs, stomach, &c., upon whose working capacity depend the best results. Length of body may be sought in a grade sow, but in pure bred animals

it would point to want of best blood. The hair should be soft and fine, the eyes bright and intelligent, the skin rather thin, the tail fine and well set on, the feet strong and upright, and the disposition gentle, quiet and tending to rapid maturity, and good care on the sows' part, of their young.

QUALITIES WANTED.

We want an animal that will produce the greatest amount of flesh and lard, of the best quality, in the shortest time and at the least cost, all other things being equal. To begin with, a pig with a large stomach, or with great eating powers is necessary, provided it has the power to digest and convert it into the products desired. A dairy cow is a milk machine, a pig is a pork and lard mill, and to keep the both running most profitably, they must be supplied constantly, with all the raw material they can use to advantage. In order to get the best returns the pig must have a quiet temper and not inclined to roam, for every yard travelled and every squeal is at the expense of just so much flesh; food provides blood, blood provides flesh, and from flesh spring force and action. Therefore the more motion, the more demands upon the stomach, and the latter calls for more food to replace the flesh and blood wasted or used; and (another important point) flesh becomes tougher and poorer flavoured the more often it is formed and transformed. If we grant that it takes three quarters of the feed simply to sustain life in a quiet animal, we see what a large extra demand must be made by the unquiet one; in fact the latter will hardly gain in weight (in proportion to feed) half or fourth as fast as the former.

LARGE AND SMALL BREEDS.

While the world lasts tastes and men will differ, and in this matter we do not expect all to agree. What suits one case will not another; experience alone teaches the best, and demand ratifies the choice. But the fact is, we have room and use for both classes, for the best breeders now generally agree that the most profitable market pig is produced from small, highly refined boars, crossed on large, roomy, vigorous sows. Now-a-days, early ripening is wanted, and, of course, the small breeds mature earlier than the large, (but at the expense of size,) thus saving food, lessening risk, and giving more rapid returns of capital. As meat can be produced at much less cost during the first year of an animal's life than the second or following, and as there is more demand for small hams than for large, many good judges say there is more money in pigs from spring litters, killed at eight to ten months old, than at any other age, and that it does not pay to winter pigs, except breeding stock, and a few to use the waste. It does not pay to raise pure bred pigs for the butcher, and there is no sense in crossing pure breeds as some do, for they cannot sell the progeny for breeding as pure bloods, and for feeding purposes they could get as good, or better litters, from a coarse, common, large, healthy sow, crossed by a pure-bred small boar.

MONGREL OR THOROUGHBRED.

We know that the majority of our farmers are well aware of the values of the two; but now and again you strike a man who abuses the pure-bred, and asks for one that will do as well as his own. Exactly, friend, give the two the same feed as you supply, the same care, (or rather neglect) that you give, and let them hustle around for shelter, in the style you like to see, and we grant, at once, that your mongrel will beat the pure-bred, simply because the first has been pure-bred to the necessity of the case. But give the pure-bred the same food, care, and shelter, that made him what he was before passing to you, and he will leave your mongrel so far behind that it would raise a

laugh. Now we do not mean to say that all should keep thoroughbred stock, of all kinds and both sexes, for they would not pay any one except the regular stock-breeder, but we do say that every farmer should use pure-bred males of each kind, as in the male lies the power of handing down the good qualities, when crossed on common stock. But the male must continue to have good food, care, shelter and treatment, for they rapidly fall away from their standard if the same care is not used to keep them there, as was used to raise them to it, and pigs and sheep are more easily changed in skilful (or poor) breeders' hands, than the larger stock.

THE ADVANTAGES OF SHEEP ON THE FARM.

Wool is so low in price, with no certain prospect of any material increase, that the keeping of sheep, except under favourable circumstances, will require very close and economical calculations if any profit is to be realized. I have not much faith in securing an increase of the duties on foreign wools by a revision of the tariff laws; and if an increase of the duties should be obtained, it is eminently proper to consider sheep husbandry upon the basis of small protection and small returns. Sheep fit in so nicely upon the farm that they can hardly be dispensed with. They have an advantage over other stock, inasmuch as they may be made to furnish an income twice in the year—first the wool, and then the lambs. They may be made to do more than this, and really to afford another income in the autumn or winter by the fattening and sale of the old sheep or the surplus stock. After trying all kinds of stock, I have returned to sheep, believing them to be indispensable for a complete development of all the resources of the farm. There is no stock so well calculated for rugged hillsides or rough pastures, and to prevent the growth of weeds and bushes. Where sheep have the range of a field, very few weeds will ever go to seed, and bushes will be so thoroughly cropped that they will either die or be kept from making much of a growth. When a farmer can thus easily turn the weeds and bushes of a farm into excellent manure, and at the same time have them converted into mutton and wool, it is certainly a good thing. Sheep will always do this. They will thrive in pastures and get fat, where cattle would almost starve. They also scatter their droppings over the field, and never fail to enrich lands where they are kept. On poor farms they are most emphatically the best factors for increasing fertility. On rich lands the same rule holds good, as they will make them richer. By the simple means of a portable shed, which can be moved about the field and under which the sheep will readily congregate, the poorest spots may be made fertile, and the whole field, by frequent and regular changes of the flock, may be thoroughly enriched.

When I was a small boy my father purchased a large farm, which had been devoted to sheep husbandry for years. He went heavily into debt in the purchase, and I recollect to have heard him say a number of times that the sheep which had belonged to the former owner paid for the farm. What he meant was that they made the farm so productive and caused it to yield such bountiful crops, after he became its owner, that he was thus enabled to make his payments. This productivity lasted for years, and made the farm famous for large crops. There are in the older States a great many farms now run down with continuous grain culture, which hardly pay the cost of the labour bestowed upon the crops. In the keeping of sheep, although the direct returns from them may not be as great as they have been

in former years, the advantage to be derived from them in the improvement of the soil should be taken into account. If, by these means, better crops can be grown, there is additional inducement for stocking the farm with sheep. There cannot be any doubt about this result. A number of years ago, when a large flock of sheep was kept on Kirby Homestead, a strip of land the most exposed of any in the field was well dressed with sheep manure. The entire field was sown with rye and seeded with clover. The portion where the sheep manure was put produced three times as much rye to the acre as the rest of the field. The clover grew so rank that its very nature was changed, and instead of dying out the second year, as it is likely to do, it lived for years and made an excellent growth.

From the facts set forth in this article, and others, I have been led to add a flock of sheep to the stock on the farm, with the intention that the farm, under my plan, must be made to keep them, and the certainty that they will be aids in its improvement and most useful factors in increasing the manure. When others go out, it is a good time to go into stock. Certainly this is a better policy than to rush with the crowd and make the extremes which unsettle markets, by over-production at one time and scarcity at another. The whole section of country around me is now a loser on account of selling the sheep, and some of the best farmers have resolved to begin sheep raising again—this time to stick.—*Col. F. D. Curtis in Rural New Yorker.*

FISHING WITH A FLOCK OF GESE.

In Scotland they have a curious way of fishing that takes the medal for ease and repose with which it is conducted. The fisherman we will say is after pike. Selecting a big goose from his barnyard or half a dozen geese, as the case may be, he ties a baited hook and line about five feet long to their feet and on reaching the water turns them in. The birds of course swim out, and the fisherman lights his pipe and sits down. In a few minutes the fish sees the bait and seizes it, giving the goose a good pull. The bird starts for shore at full tilt, frightened half to death, dragging the fish upon the bank, when it is unhooked.

The line being rebaited, the feathered fisherman is again sent out to try its luck. A flock of geese can make quite a haul in the course of a day, the human fisherman having only to take off the game and bait the hooks, the pulling in and hooking being done by the birds.

It is said that American manufacturers prefer Australian wool to American, at same price, simply because the former prepare it better. Australian fleeces contain no tags or skirts—just the pure fleece—but the American fleeces, as a rule, have a lot of tags and other refuse stained with the good fleeces, reducing the value, per pound, of the whole lot. Australian wool shrinks about fifty per cent. in washing, while American shrinks from sixty-seven to eighty-seven per cent.

A SHREWD Ohio Dutchman was lately asked why he always ploughed his stable and yard manure under green. His reply was:—"Vell, may pe I can't exhlain him till you onterschandt him already, but I exhlain him to onterschandt him mit myself, dish veay. Venefer I plough de fresh manure under dot furrow, don't you see, vy, den dot furrow schmells him all summer, und der roots dey schmells him too." Mr. Root's more scientific language is:—"When turned under in a heavy soil all the solvent (or soluble) and gaseous elements are absorbed by the soil and used by the crops."

MISCELLANEOUS.

REMEMBER that baking soda gives instant relief to burns if applied at once, either dry or wet.

FARMERS are busy threshing their good crops, but are a little downhearted at the low prices.

OF the United States public lands over twenty million acres have been sold to non-resident foreigners, chiefly English.

IF you have farm gates on hinges grease them monthly, put a piece of tallow or lard in a hole in the post and it will be handy when wanted.

A NEW style of rabbit hutch has a wire bottom, through which the grass extends, and the rabbits can feed themselves, being moved from time to time.

FROM several of the United States come reports of great damage to crops and buildings and forests, and loss of life, by cyclones, fires, hail-storms, drought, &c.

A WELL-KNOWN pest in Europe, a small, white maggot that burrows into the mangold leaves, eating out the pith of the stalks in a few hours, has appeared in Ontario; doing great damage in some sections.

TAKE care of lighted matches, a farmer in Ohio lit his pipe while raking hay and threw the match down but soon had to drive for his life and had the pain of seeing the fire destroy all the cut hay and several acres standing grass.

THE city of Des Moines, Iowa, U.S.A., has raised fifty thousand dollars to secure, permanently, the state fair, and the state adds as much more, thus ensuring splendid grounds and buildings, such enterprise amply repays both city and country directly and indirectly, and is well worthy of repetition.

THE system of ensilage, (preserving fodder in a green state,) is having extended trial in England, as well as in America, and calls forth the same diverse opinions upon its values and effects. One great drawback in England will be that their climate is not suited to the best growth of the chief plant for ensilaging, Indian corn.

THE famous butter market in Cork, Ireland, was established 100 years ago, and its yearly sales reach nearly eight millions of dollars. The producers are now complaining that brokers classify their butter under an arbitrary system, they have no redress, and the consequence is that their butter is almost shut out of the London market.

ENSILAGE, (or pitting of green crops by airtight packing) seems to be yet on trial, though the *Country Gentleman* says that letters received, "seem to show conclusively, to an impartial mind, that its introduction in this country affords rather cause for gratitude than occasion for regret." If all that is claimed for it, or (less) be true, we welcome it with all other means of profit and success in farming, though it may be many years before it has a trial in this country.

THE remarkable statement is made by Dr. Dewolf, Health Commissioner of Chicago, that milk from cows fed on swill from a distillery is much better than that from cows fed good, wholesome grass, hay, &c., and he brings reports of tests made by Prof. Long, Professor of Chemistry at Chicago Medical College, and his assistant, Dr. Bacon, to support him. The value of their, or any expert's testimony will be seen when it is known that several "doctors" could not detect milk adulterated with a fourth of glucose and water. Any one who had ever seen the horribly filthy and suffering state that some of the city stable cows are kept in, and who knows the bad effects upon cows of feeding swill alone, will hardly be likely to accept the doctors' decision.

THE DAIRY.

HOW TO RECOGNIZE A TWENTY-QUART COW.

When she is only six weeks old it is hard to tell, and yet I think not so very difficult to do. I do not know that I can tell how. I like a thrifty calf, with a good sized head, which is narrow and long, broad in the muzzle and between the eyes, and narrow between the horns. I do not care if the limbs are "strong," as they say in Jersey, and perhaps coarse, but they must be straight; and the tail may be even quite coarse at its setting—this indicates constitution. Then, from the withers to the hips there should be a straight upward slope, so marked that if you see the front half of the calf, you will think she is a small one, while if you see only the hind quarters and loin, you will think her very large. In fact, in point of symmetry, the front and hind quarters ought not to match, and the latter should be by far the larger. I prefer long-bodied, open-ribbed, flat-sided, deep-bodied calves. The skin should be loose and flexible all over the body, so that one can grasp a handful almost anywhere. The coat must either be long and silky, a little rough, perhaps, but not harsh, or it should be soft and furry. With all this, you should find the teats of good size, well spread, and all the skin about them, before and behind—that which will cover the udder—loose, soft and elastic, showing as the Scotch say, "plenty of leather." Such a calf will make a good milker if she is bred at a year or fifteen months old, and after her first calf goes farrow (but not long dry), for a year, or nearly that time, to give her a chance to grow. I say nothing about the escutcheon, because I do not know very much about it, and do not believe in half that is said and written about it. Still I must say I would prefer a good, broad, well-winged escutcheon, of the Flandrius type, for if the escutcheon shows anything, it indicates staying power, which is, perhaps the greatest merit a cow can have. Many a twelve or fourteen-quart cow will beat a twenty-quart one in the long run, especially in her butter record, a true test of a cow's value.

CREAMING MILK IN WINTER.

During the cold weather milk from which butter is to be made will need special attention and care. It is customary with farm dairies to have trouble with their cream at this season of the year. It has flecks in it, or it don't churn well, or the cream rises imperfectly and does not taste right—is too bitter, too sour, too strong, tastes bad, or smells bad or is "off" in some way. The treatment which will remedy the greatest number of defects in winter milk is scalding it. This will make the cream rise quicker and have more flavour and colour. The way to scald it, if no special preparation has been made for doing it, is to place a pan or kettle of water on the cook stove and let it heat to boiling. Place the warm milk as soon as it has been strained, in a tin vessel and put this vessel in the water, and let it remain till the milk is scalding hot. To determine when it is hot enough a thermometer is very convenient. The milk may be taken off when it is up to forty-five degrees. If a thermometer is not in hand, heat till the wrinkles form thickly on top of the milk and slit over the surface rapidly. Then set it away in pans for cream to rise, which it will do quickly, but it will be much thinner than cream from unscalded milk, but it will, nevertheless, make more butter than the thinner coat, as well as churn easier. To facilitate churning in winter, skim early, keep the cream well stirred, so it shall all have the same temperature and get the same airing, and churn often. To keep the flavour of

winter butter pure see that it takes no scent from victuals cooking on the kitchen stove, or from grease or other matter slopping over and burning on the stove. Cream, while rising will absorb all such odours and carry them into the butter.—*National Live Stock Journal.*

MAKING FIRST-CLASS BUTTER.

Prof. L. B. Arnold, who bears the reputation of being one of the most successful experts in the dairy business, lays down the following maxims in reference to making first-class butter:

First—To make the finest-flavoured and longest-keeping butter, the cream must undergo a ripening process by exposure to the oxygen of the air while it is sweet. This is best done while it is rising. The ripening is very tardy when the temperature is low.

Second—After cream becomes sour, the more ripening the more it depreciates. The sooner it is then skimmed the better, but it should not be churned while too new. The best time for skimming and churning is just before acidity becomes apparent.

Third—Cream makes better butter to rise in cold air than to rise sooner in cold water, and the milk will keep sweet longer.

Fourth—The deeper milk is set, the less airing the cream gets while rising.

Fifth—The depth of setting should vary with the temperature; the lower it is the deeper the milk may be set; the higher, the shallower it should be. Milk should never be set shallow in a low temperature nor deep in a high one. Setting deep in cold water economizes time, labour and space.

Sixth—While milk is standing for cream to rise, the purity of the cream, and consequently the fine flavour and keeping of the butter, will be injured if the surface of the cream is exposed freely to air much warmer than the cream.

Seventh—When cream is colder than the surrounding air, it takes up moisture and impurities from the air. When the air is colder than the cream it takes up moisture and whatever escapes from the cream. In the former case the cream purifies the surrounding air; in the latter the air helps to purify the cream.—*Journal of Agriculture.*

SOFT CHEESE.

There are numerous circumstances in the manufacture of cheese by varying which, all in one direction, would make a cheese as hard as a brick or as soft as a pudding. First, the older and nearer sour the milk, and drier and harder the cheese, all other circumstances being the same; and the newer and sweeter the milk, the softer and moister will the cheese be. This is because old milk is already on the road to decomposition, and its parts (water as well as others) sour all the more readily than those of new and sour milk. Whey is separated from curd by the chemical action set up in milk by the influence of rennet, hence if all other conditions remain the same, the more rennet used, the more rapid and complete will be the separation of whey, and the harder and drier the cheese, and the less rennet the softer it will be. In a similar way cutting the curd can be made to vary the cheese, by aiding or obstructing the mechanical separation of whey. The earlier and finer the curd is cut, the less the mechanical obstruction in the way of the escape of whey from the curd, and the longer it is left without cutting, and the larger the lumps of curd, the more difficulty will the whey have in escaping, and, consequently, the more it will be retained to make the cheese soft. So with time and temperature. Rennet acts most vigorously at blood heat, and consequently whey separates most rapidly when

the curd is at ninety-eight degrees; and the longer the time of keeping it warm, the more they will be exhausted and the drier the cheese. Souring is also an efficient means for extracting moisture and making a cheese dry and hard, and should be guarded against where soft cheese is wanted.—*National Live Stock Journal.*

FANCY CHEESE MAKING.

The following is the pith of an essay on "Fancy Cheese Making," written by T. D. Curtis, of Syracuse, N.Y.: "Pure, whole milk from healthy cows in sweet pastures, or fed duly balanced rations, in stalls, is requisite. The more directly it goes to the vat the better. If kept over night reduce the milk to sixty-five degrees. An agitation to keep the cream from rising is desirable. Mix night's with morning's milk when ready to work. If cream is to be incorporated, warm it and pass it through a wire strainer. Heat the milk slowly to eighty-four or eighty-six degrees. Add your colouring matter and rennet enough to begin coagulation in ten or twenty minutes as desired. Cut the curd as soon as it can be done without waste, as fine as beech nuts. Slowly raise the temperature, gently stirring it the while, to ninety-eight degrees. Hold it there to the end. Draw the whey as soon as there is the least sign of acid, or before. Get sufficient rennet action to expel the whey before the acid develops. This prevents the phosphate from washing out and insures a digestible cheese when properly cured! If you cheddar and grind, or not, thoroughly stir and air the curd, to get rid of bad odours and develop flavour. Put to press not above eighty degrees, and place in an even tempered curing room at sixty-five to seventy degrees. Avoid direct draughts of air and carefully turn and rub the cheese, which will be prime."

The cheddar cheese of Canada is made by draining off the whey while it is sweet, the curd being allowed to sour afterwards. There is more nutriment in the cheddar than in the common cheese of the States.

The *American Cultivator* tells how a kicking cow can be well utilized: A farmer who bought a cow which neither he nor his men could milk, found that he could make her profitable to suckle calves, which were very high priced that season.

Cows that are watered from stagnant ponds or wells in the barnyard will give milk more or less tainted, and from which it is impossible to make the best butter. So large a part of the milk is water, that the drink of the cow is of quite as much importance as her food.

The idea that apples dry up the flow of milk arises from turning cows into orchards to pick up the fallen fruit. They get a very uneven supply, and after heavy winds undoubtedly get too many. A few fed daily will increase the flow, and the amount fed may gradually be increased with benefit.

The *Utica Herald* tells of a dairyman who was troubled with the smell of garlic or wild onions in the milk. To obviate this, he put the cows in the stable about three o'clock every afternoon and fed them on hay and gave grain as usual. The result was all he anticipated. A rest of three hours allowed the scent to pass off in other secretions, though previously it flavoured both milk and butter.

When a cow loses one of her teats it does not follow that her actual value is impaired, except as it may make milking more difficult. After the milk veins have become accustomed to the change all the milk secreted will go to three teats as well as to four. Losing a teat is an indication that a cow is or has been a great milker, and may, therefore, be worth more than one that has never had any such difficulty.

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The Rural Canadian.

TORONTO, OCTOBER, 1884.

UNDERDRAINAGE.

If farmers spent money only in underdraining and otherwise improving their lands, running in debt would not be for them the objectionable practice that it often proves. And it sometimes is necessary to borrow money for underdraining work, as there are some fields so unproductive before being drained that they would never pay for the labour of cropping. In such cases it may be good economy to borrow money for making the desired improvement, trusting to repay it when the crops are harvested and sold. Now that ditching machines of an efficient kind are being made, it seems to us that the most economical way of conducting underdrainage work would be for one or two persons to buy a machine and operate it in a neighbourhood during the spring, summer and autumn months, just as is done with a threshing machine in fall and winter. The threshing season does not usually last more than six or eight weeks, but employment for a ditcher might be found for as many months. A great many more of our Ontario farmers would gladly underdrain their land but for the difficulty of procuring labourers of the requisite skill, but with the more general use of machines the work might be done both efficiently and economically. The ditcher indeed promises to become as valuable an aid to the farmer as the self-binding harvester. It will do its work better and quicker than hand labour can, and there is every reason to believe that for a time at least it will reduce the high average wage now being paid to the farm labourer. More work and higher cultivation are what we require in this Province to give to the farmer the largest margin of profits, and the greatest hindrance to these is the prevailing high rate of wages for hired men.

FORESTRY.

The Ontario Clerk of Forestry has been making a tour of the eastern and northern parts of the Province, collecting information for a forthcoming Report on tree-planting, the preservation of forests, and general matters relating to the important subject of forestry. Mr. Phipps will doubtless give valuable information to the country, and there is no better way of gathering it than by a personal tour in which he will see what has been accomplished by the thoughtful land holders, as well as what the results of certain lines of policy have been. One of the great difficulties in the way of forestry reform is, that our country is as yet too young to demonstrate the evil effects of denudation. Owing to the great depth of alluvial soil in the larger portion of the old settled districts no serious harm has yet been done, and it is possible that the cleared area might be considerably increased in those districts without much risk being incurred. But it is very different in the more northerly districts, where the rocks are within a few feet of the surface and where the soil is speedily parched upon exposure to the sun's heat. Fortunately the settler has not yet made any great progress there in clearing the woods, and if timely advice is given and followed the great mistake which has been committed in other countries of similar character may be avoided. There are localities in the Muskoka,

Parry Sound and Nipissing districts, in the Valley of the Trent, and along the northern and southern shores of the Georgian Bay that should forever remain in woods, and that will unfailingly be of greater value to the owners of the land if they so remain. If any one needs to be convinced that this is the true policy he need only make a tour of the New England States, where settlement began at a much earlier date. There he will see almost every hillside, and indeed almost every mountain top, stripped of its wilderness cover and left a waste of bare rock or parched soil and generally useless for any agricultural object; and nowhere else on the continent can a more practical and useful lesson in forestry be studied than in those States. May we suggest to Mr. Phipps that he make this tour, and embody his observations in the Report on which he is engaged?

STOCK-FEEDING AT THE EXPERIMENTAL FARM.

An interesting pamphlet has been prepared by Prof. Brown of the Experimental Farm at Guelph, giving the closing results of a series of experiments in the feeding of cattle and sheep. The experiments with cattle were made with twenty-one animals, extending over a period of 196 days, divided in to seven terms of twenty-eight days each, and the cattle being divided into seven groups of three each per term. The conditions were the following:

- 1.—Half-bred Shorthorn steers, averaging exactly twenty-four months at finish.
- 2.—Equal stable accommodation, management, and grooming.
- 3.—Similar previous management.
- 4.—Equalizing of animals in groups.
- 5.—Weighing of every article of every meal, and water consumed.
- 6.—Weighing of unconsumed food.
- 7.—Animals weighed every week.
- 8.—The changing of every group of cattle to different food every term of twenty-eight days.
- 9.—The daily record of stable temperature.
- 10.—All grain ground into rough meal, hay whole, except in cooking, and roots sliced.
- 11.—Feeding at 7:30 a.m.; 11:30 a.m.; 5 p.m., and 8 p.m., daily.
- 12.—Exercise for half an hour daily.
- 13.—Rock salt always in manger.

Eleven mixtures of food were given in the course of the experiments, and the report gives a careful analysis of the results with each. The comparative results are given as follows:

Food.	Average Daily Rate		Cost of adding 1 lb. to live weight.
	weight of steers during experiment.	of Increase.	
Mixture of grain.....	lbs. 1171	lbs. 2½	cts. 8½
Mixture of grain with Cake.....	1172	2	11½
Mixture of grain with Thorley.....	1163	2½	11½
Corn.....	1170	2½	8
Peas.....	1163	1½	11½
Oats.....	1186	1½	10½
White Barley.....	1166	1½	10½
Black Barley.....	1172	1½	11½
Hay, Roots and Bran.....	1023	2½	9½
Uncooked Food.....	1108	2½	9
Cooked Food.....	856	1½	9
Average	1122	2	10

From this it appears that for rapid production the highest result was obtained from the feeding of uncooked food, consisting of hay, roots and meal—the average rate of increase being two and three fifth pounds per day. The next best result was obtained by feeding a mixture of grain and Thorley's condiment, and corn followed as a close

third. But for rapid and cheap production combined the advantage lies with corn fodder; the mixture of grain with hay, roots and bran coming second, and uncooked food third. Cooked food, strange to say, gives a result but very little better than the worst, and when we consider that it costs more, and is likely to make a more tender travelling animal, the knowledge of the fact becomes doubly important. In commenting on his experiments with the leading foods Prof. Brown says:

Though lowered in nutritive value by mixing with hay, roots and bran, the peas ration is yet very much higher chemically than any of the others, and accordingly, we would expect corresponding results in animal increase, if not in cheapness. It does not do so, however, and thus we meet with one of the puzzles that troubles the scientific student. This experimental station has, in previous years, shown that peas take a high position in animal feeding—and we must not forget this,—but now the record is much lower; we want more than one and three-fifth pounds per head per day, and a less cost than eleven and a half cents per pound. We want fully two pounds and less than nine cents.

The two kinds of barley have made an even record, being, for all practical purposes, equal to each other, and their average is very little under that of oats. Oats, therefore, have taken their proper place, when chemically considered, in relation to barley.

Corn, as the prominent coarse grain of the United States, is not, chemically, of very high standing, as by itself the nutritive ratio is only 1:8.3, and although in our mixing of it with hay, roots and bran, it has been raised to 1:4.84, this position is still the lowest of all the list.

When, therefore, we have the most distinct evidence, by twenty-one head of cattle throughout seven months, that corn, as a regulating portion of a ration, has given in cheap and rapid production, no less than twenty-five per cent. better results than the average of all the others, and ten per cent. better than the best of the others, a fair judgment can be made as to its value in the winter feeding of cattle, irrespective of any chemistry. Why is it? It is high in digestible organic substances, therefore, low in indigestible; and it is also high in digestible fat. If these experiments stand as a correct guide, it would pay to feed corn at seventy cents a bushel as against peas, oats and barley at an average of fifty-six cents. It is worth noting that in the use of corn very much less water was consumed throughout the whole test, almost ten per cent. less than the mean of the others.

Is it not, after all, more the cost of the food than its chemical standing that regulates the cost of producing beef?

If a man had no grain to spare, but plenty hay and turnip, with considerable bran from his own grists, it appears by these notes, that he could turn out steers at less cost and a greater daily rate of increase than the average of those who feed barley, oats and peas. This is not the first time the Ontario Experimental Farm has drawn attention to the rapid and cheap growth of young store cattle upon such a diet.

As to profit of feeding, Prof. Brown gives the results for forty cattle handled last winter in connection with his experiments as follows:

Cost of store cattle.....	\$1,862
Market cost of food and bedding.....	\$1,780
Less profit on market price.....	\$50
Attendance.....	265
Sold for.....	3,057
Actual cash profit.....	466
Credit 300 lbs. manure at \$2.50.....	750
Balance.....	1,216
This gives an average profit of about thirty dol-	

lars per head, which under all the circumstances should be regarded as encouraging.

Experiments were also made with the maturing of Shorthorn, Hereford and Aberdeen Poll grade steers,—three of each—account being taken of age, weight at close of the period, and daily rate of increase. The averages for each class were as follows:

Grade.	Age in Days.	Weight lbs.	Daily rate of Increase lbs.
Shorthorn	884	1695	1.92
Hereford.....	700	1508	2.15
Aberdeen Poll.....	737	1598	2.17

The advantage of early maturity is consequently in favour of the Hereford grades.

The experiments in feeding sheep are given by comparative results in the following table, the test being with Oxford and Shropshire grade wether lambs dropped in the spring of 1883:

Food.	Weekly Increase per head.	Weight at Finish.	Cost per lb.
Oats and hay.....	lbs. 2.60	lbs. 143	cts. 9
Peas and hay.....	1.75	124	12
Beans and hay.....	.95	117	19
Low feeding.....	.63	112	22
High feeding.....	1.40	125	12½

In his analysis of the tests Professor Brown says:

The rapid and cheap production of mutton in winter has been attained best by the use of oats and hay, and second by peas and hay; this places six wether lambs as equivalent to one two year old steer. The average of these two only distinct ordinary forms of feeding sheep in this test equals one-third of a pound per head, per day, and ten and one-half cents for the added pound in weight.

Beans do not seem to act as profitable grain for sheep, as the rate of growth of the average wether is little over half, and the cost of production is double that of peas.

That poor feeding is expensive feeding is well illustrated here; not one-third the ordinary rate of progress, and twice the cost of production, must be very much the position of those who practice what they consider economy.

The case of what is called "high feeding," although apparently good in results is yet no equal to moderate management of lambs, which can evidently be expensively fed for their age, and even kept back by a high pressure process.

It is in the conduct of such experiments as these that the most valuable work of the Experimental Farm is done, and we are pleased to see that Professor Brown has adopted the plan of giving his results to the public promptly and in brief form, instead of waiting several months to produce them in an elaborate annual report which not one farmer out a hundred in the Province ever sees.

VARNISHED waggons should never be housed in a stable or where any stock is kept, for the ammonia that comes from the manure kills the life of the varnish, destroying all the gloss. It is always best, if possible, to keep varnished carriages and waggons in a building away from the barn.

TA proadside, (Highland hostess shows a lady friend through the house). Lady friend—"You keep two pianos in this room." Highland hostess—"Och, yes, yes. We keep wan for ta musick, and wan for ta proadside (sideboard)."—*Bailie.*

THEY NEITHER TOIL NOR SPIN.

They neither toil nor spin, they wear
Their loveliness without a care,

As pure as when the Master's feet
Were set amid their perfume sweet.

The summer hills rejoice to see
Their carven censers swinging free.

They wait within the gates of dawn
Till all the watching stars are gone;

Then open cups of honey-dew,
To greet the morn's returning hue.

O, fair, wise virgins, clothed in white;
O, lilies, fresh from looms of light!

I dearly love you for the word
That stars you, noted of the Lord,

I love you when, in gold and red,
The sunset colours o'er you spread;

Or when like fairy sails of snow,
The river rocks you to and fro.

You are the Master's flowers to me
His smile upon your grace I see.

My transient discontents I hush
If but my garment's hem ye brush.

And everywhere your fragrance brings
This message from the King of kings.

"We neither toil nor spin. And ye,
Who spin so long and wearily,

"Who toil amid earth's grime and dust,
Behold—a hallowed arc of trust.

"O, pause and hear the Father say
His angels are your guides to-day!

"While worlds in matchless order move,
Ye shall not slip from sovereign love;

"For He who bids the planets sweep
Cares for the tiniest babe asleep."

—Margaret E. Sangster.

SIR JOHN LUBBOCK.

The Lubbocks have for generations been identified with the world of finance as partners in the great house of Roberts, Lubbock, & Co., and for two generations have been eminent for their scientific attainments. Sir John's father, the head of the firm, was also Treasurer of the Royal Society, Vice-Chancellor of the London University, and the author of numerous papers on mathematical and astronomical subjects. With his share in the bank, the present Sir John inherited his father's taste for science. He entered the bank at the early age of fifteen, and became a partner in 1856, and was active in the discharge of all his business duties. He introduced improvements into the Clearing House system, was first President of the Institute of Bankers, and was appointed to serve on the International Coinage Commission. But it is not by his financial works that Sir John is known. He appeals to wider circles than those of Lombard Street and Wall Street. As early as 1853 he commenced to contribute to philosophical journals and the Transactions of the Royal Society. The most widely known of his researches are those upon certain groups of insects, and upon wild flowers in relation to their fertilization by insects, and every one who has read his most fascinating book on "Ants, Bees, and Wasps," must have risen from the perusal with love for the man, as well as wonder at his patience and ingenuity. His story of the affections, memory, habits, and behaviour of ants, at home and abroad, sober, intoxicated, and chloroformed, is simply a marvel of investigation. It would be too long to enumerate all his writings; it is sufficient to say that in addition to natural history, Sir John has devoted much time to ethnology, and his "Prehistoric Times" and "Origin of Civilization" are authorities on their subjects.

The work of the head of a bank and a student of science is not often successfully performed by one man. Sir John, eminently successful in both, has also distinguished himself in Parliament. He introduced and carried through the House fourteen important measures on banking and medical affairs; he succeeded in having passed a bill to preserve ancient monuments, and in 1877 came prominently to the front by moving the previous question to Mr. Gladstone's resolutions on the Eastern question. He is a member of countless learned societies in England and abroad, and a doctor of sundry colleges.

But all his writings, his researches, his money, or his honours would not have insured the immortality that awaits him. Riches may make themselves and fly away, the science of to-day is obsolete to-morrow, but the man who can create four annual holidays will have his name handed down to the remotest posterity. By the Bank Holidays Act of 1871 Sir John performed this feat, and now the London clerk celebrates St. Lubbock's day as if it were duly entitled to its place in the calendar.

Sir John was born in 1834, and was married for the second time in the spring of this year. He suffers severely from occasional fits of gout, which, however painful, are not dangerous.

England may well be proud of such a son. The union of high practical skill in a business so responsible as that of a London banker with such unwearied devotion to science is always rare. Sir John, like the historian Grote, of the

firm Prescott, Grote, Cave, Cave, & Co., proves that a banker may be something more than a mere money spinner, and that a student need not be devoid of business ability. In all his works we see genuine love for truth, great kindness, unaffected simplicity, moderation, and precision. As a man of business he has been enlarged by his scientific pursuits, while as a student he has by his active participation in affairs been saved from sinking into the pedant; the *dilatante* he could never have become.

MONTE CARLO.

It is impossible that evils so gigantic as the gaming establishments at Monte Carlo should long outlive the chorus of reprobation they have aroused. I am reluctant they should expire without having lifted a finger to aid in their subversal. Europe in the last century was studded with gambling resorts. Apart from the public gaming tables at Baden, Homburg, or elsewhere, there was scarcely a watering place, or a place of summer resort like Grenoble or Aix, where a man burdened with loose cash might not find a congregation of gamblers and *chevaliers d'industrie* ready to ease him of it. Slowly public opinion has put down public gambling as immoral, and now Monte Carlo is a solitary representative of one of the most mischievous of human institutions. Gorged with the spoils of its predecessors, it stands a moral pest-house. In the midst of the loveliest scenery Europe can boast, on the chief health resort of the South, it remains a centre of contagion. Seventeen million francs it annually draws from its victims, which means, according to calculations that cannot be disputed, that between £20,000,000 and £30,000,000 are annually won and lost at the tables. The difficulty seems to be how to get at the owner. If a princeling were to maintain in Europe—and close to such countries as Italy, France, and Switzerland, and practically Spain also—a physical pest-house, a seat of disease whence smallpox or cholera spread to adjoining countries, he would find himself compelled to put his house in order. A collective remonstrance from the powers would, in such case, bring about an immediate change. If not, the process described by an Eastern prince as that he would employ to England if he went to war with it might be recommended, and an army of sappers and miners might be sent to tumble the entire principality into the sea.—*The Gentleman's Magazine.*

A DEAF HEARER.

In the village of—there is a Presbyterian church, several of whose members are Scotch-Irish. Their views and their practices on the subject of temperance are not in strict accord with the notions of their pastor. Some years ago he preached them a sermon in which he "came down pretty heavy," as the younger brethren described it, upon the habits of that portion of his flock who came from the province of Ulster. One in particular, McA—, a good old man, with but one failing, who occupied a pew at the side of the pulpit, was so clearly hinted at that all eyes were upon him. Even the minister expected that "Mac's Irish blood would be up." The offending brother was slightly deaf, but the preacher was so earnest that even the deaf could hear. But McA— knew how to turn his infirmity to account. The benediction was scarcely ended when he had the pastor by the hand.

"Brother W—," he exclaimed, "an' it is dauncing ye are giving it to the young folk about?"

Brother W—waited some time before he ventured another temperance sermon.—*Editor's Drawer, in Harper's Magazine for October.*

A LONESOME GRADUAE.

The second Commencement of King's College, in 1759, was necessarily private, only one student being admitted to the degree of Bachelor of Arts. How lonesome Epenetus Townsend must have been!

In the records of the College are some quaint remarks about certain of his companions who began their college life with him, but afterwards left him in the lurch. Of one it is said that "in his third year he went to Philadelphia College"; of another, that "about the middle of his second year he went into the army"; of another, that he, "after three years, went into merchandise"; of another, that "after about two years he went privateering"; and of another, that "after three years he went to nothing."—*John MacMullen, in Harper's Magazine for October.*

GENIUS AND LONGEVITY.

Did not Lord Rosebery go rather too far when he said "that genius, as a rule, made quick work with life?" Of the world's greatest poets, for instance, how many have died young? Burns and Byron and Keats and Shelley and Schiller, are all cases in point; but as a rule we do not find that they crowded a lifetime into a few brief years, and then hurried off from an uncongenial sphere. Eschylus was sixty-one years old when he died, Euripides seventy-three, and Sophocles eighty-nine. Virgil survived his half-century by one year, and Horace, though also born in a short-lived age, died at fifty-seven. Dante did not die, in spite of all his troubles, till he was fifty-six, and Shakespeare at his death was fifty-two years old. Of the other names that occur to us, Chaucer lived till he was seventy-two, Milton sixty-six, Voltaire died at eighty-four, Calderon at eighty-six, Goethe at eighty-three, and Wordsworth at eighty. No doubt many to whom the gods give genius die as young as those whom the gods love; but in face of this array of greybearded genius Lord Rosebery's rule was much too absolute.—*Full Mall Gazette.*

THE oldest and largest tree in the world, so far as known, is a chestnut near the foot of Mount Etna. It is hollow, and big enough to admit two carriages driving abreast through it. The circumference of the main trunk is 212 feet. The Grizzly Giant, monarch of the Mar, Grove, measures ninety-two feet.

GARDEN AND ORCHARD.

CHOICE HOLLAND BULBS.

CULTIVATION OF THE HYACINTH.

IN POTS.—This is the most approved method of cultivating the hyacinth in-doors. The soil used should consist of one-third each sand, vegetable mould and rich loam. Five-inch pots are the proper size for one bulb, but in a seven-inch pot three bulbs may be placed to advantage. Have the soil in the pots firm, and the bulbs set so that the tops will be barely covered. After planting, water them freely, so as to imbed the bulbs firmly within the soil. Allow them to remain in this condition for one or two days, then imbed the pots in earth, so as to preserve the moisture, and then place in the cellar or other cool, dry place, not exposed to the light; leave them in this condition for about six weeks, then gradually bring them to the light, and finally to the place where they are destined to bloom.

IN GLASSES.—Nothing is more easily grown or more fragrant, or that will more richly reward the cultivator of flowers, than the hyacinth for pots and glasses. The named varieties are the most desirable. For glasses the single ones are preferred, although some of the double ones are equally as good. Coloured glasses are best, as the roots naturally shun the light. Use clean glasses filled with water. A few small pieces of charcoal placed in each will keep the water pure for a long time. The base of the bulb should barely touch the water. Set the glasses away in a dark, cool cellar, or frost-proof closet, for from twenty to thirty days, or until the roots have grown to the length of four or five inches. This is essential to the production of fine flower spikes. Then remove to a room of moderate temperature. Keep near the light as the leaves unfold, avoiding strong sunshine and dry, scorching air. As the water evaporates, keep the glasses filled with water of the same temperature as that of the room. A teaspoonful of guano-water once a week poured into the glasses, after the flowers begin to appear, will increase the size and beauty of the bloom. After blooming, pinch off the flower-stems, and plant the bulbs out of doors, where they may remain till the foliage decays. They will not succeed in water the second year, but may be planted in the border in the Fall.

IN BEDS.—Hyacinths may be planted in the border from the middle of September to the first of November. If the soil is stiff and clayey, dress with sand and well rotted manure, digging deep and mixing thoroughly. Plant in lines eight to ten inches apart. When the leaves become yellow, the bulbs may be taken up, dried, and packed away until required for planting again in Autumn.

CROCUS.

A universal favourite, and one of the very earliest ornaments of the flower garden. They should be planted in October or November. Set the bulbs three inches apart, and cover with more than two inches of earth. Before winter sets in cover the bed with a little straw, coarse manure, or other litter, to prevent the bulbs being thrown out by the frost. The crocus will flower well in the house in winter—half a dozen or more in a pot or in baskets of moss, or in any other way that good taste may suggest. The bulbs may be set so close as almost to touch each other. For pot culture the named varieties are strongly recommended, the flowers produced being larger and more perfect. The mixed crocus are excellent for bedding.

CROWN IMPERIALS.

This flower, which belongs to the Fritillaria tribe, is exceedingly handsome, and should be an inhabitant of all gardens. Looks remarkably

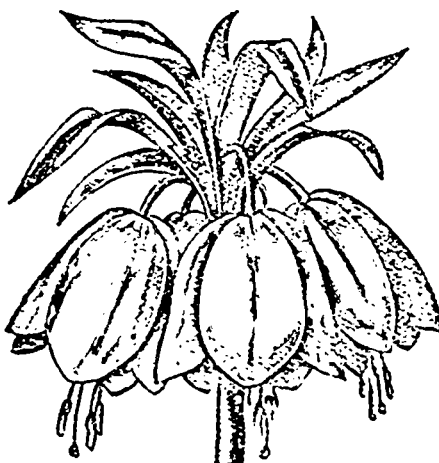
well planted at intervals of two feet in a bed of tulips, relieving the bed from a low level, which is sometimes monotonous. Grows very easily, but requires abundance of sand. Forms an excellent background for more dwarf-growing bulbs.



DOUBLE HYACINTH.



CROCUS.



CROWN IMPERIAL.

TO PROTECT FRUIT TREES FROM RABBITS.

To Mr. A. S. Barnard and all others who use the tedious method of bandaging or wrapping trees, I would say, try the following: Take one peck unslaked lime, slake and add one gallon soft lye soap, reduce to consistency of common white-wash, and apply to tree with a mop or old paint brush. I know the above to be a sure preventive besides being the most healthful thing that can be applied to the tree.—D. C. P., Milton, Ky.

THE BORER PEST.

There seems to be a good deal of ignorance or neglect among farmers and even among orchardists in regard to the borer. He is a very destructive insect, and, if neglected, will in a few years destroy an apple or quince orchard. We have not found that it does much harm to pear trees, for it prefers the apple, quince or thorn, and does not seem to attack the pear very freely. If taken in time it is very little work to destroy this borer, but, if left until he has had time to work deeply into the wood, it is another thing. One must be careful and go over the trees two or three times each season to be sure that none are allowed to enter and remain there. The borer may easily be detected by the reddish castings left behind him. We use a knife and wire, though a tough twig will answer. If taken early only a knife is necessary. Let no one neglect this important matter who has an orchard that he wishes to preserve, and if he has one that he does not care enough about to protect it, it is better to dig the trees up by the roots than to leave them to breed insects. The *Country Gentleman* has the following excellent suggestions on this subject:—

The apple-tree borer, better known as the round-headed borer, in its perfect state, is a beetle three-fourths of an inch long, with two broad whitish stripes running the whole length of its back, with rather long and curved horn-like antennæ. This beetle lays its eggs in the bark of the tree near the ground early in summer, and on till mid-summer. These soon hatch, and the young larvæ begin to gnaw their way inwards, cutting gradually into the solid wood. They are but three years in reaching maturity, when they come out in the form of the beetle already described. They are easily reached and killed by clearing away the openings of the holes with the point of a knife, and then punching them with a flexible wire or small twig. The operator knows when he reaches them by the peculiar touch. It is better to examine the trees often enough to find the larvæ when they are young, and before they have penetrated far into the solid wood.

A partial remedy for preventing the laying of the eggs is coating the bark from the ground well up with soft soap, or soap made as soft as thick paint, with washing-soda and water. If applied in fair weather it becomes dry, and will not so soon wash off. It may be applied two or three times from the first to the end of June. This insect attacks the pear, quince, mountain ash and thorn. The flat-headed borer is half an inch long, more or less, of a shining greenish black colour. It is very common in the Western and South-western States, and is also found far north. It attacks the trunk of the trees from the ground up to the limbs, and lays its eggs at the south late in May, and in Canada in June and July. The eggs soon hatch, and the worms bore through the bark into the sap-wood. It is much shorter-lived than the round-headed borer. Sickly trees are more liable to its attacks than strong and healthy ones. The larvæ are easily found by using the knife, and are destroyed; and the eggs may be mostly excluded with the soap and soda wash already mentioned. This insect attacks the oak, soft-maple and several other trees.

The best way to combat the blackberry blight is to plant a new patch every two or three years on a new spot. When the old bushes are destroyed, burn them.

Rocker larkspurs and pansies, if sown now, will give a more satisfactory return of flowers next year than they will if sown in the Spring. The pansies may be transplanted when an inch high, but the larkspurs should remain where they are sown.

BLACKBERRIES.

In field cultivation the blackberry is set in rows, about eight feet apart and three to four feet apart in the rows. If they are properly planted the new shoots from the roots will begin to show themselves in a very few weeks. Two or three only of these are allowed to grow the first year, and the ground ought to be kept free from weeds and frequently stirred. It is recommended to pinch off the terminal shoot of each plant when it has grown to a height of about three feet. That causes the plant to throw out side shoots and form a bushy top. There will be no fruit the first year, but the second year the previous year's growth of wood will bear fruit and then die. Therefore as soon as the fruit is gathered the wood which bore it should be cut away, that the new growth of wood may have plenty of room. If the system of pinching off the terminal shoot of the plant, as above recommended, is not followed, the stalk will grow tall and slim. Some permit this; but, if it is permitted, the stock should have some support, or it may be blown over by the wind. The system recommended, however, is the one by which the most fruit can be produced. In the cultivation of the blackberry, we must always remember that it is a rank feeder. The ground must, therefore, be very rich, and no crop will give a better return for the application of good manure.—*Western Rural*.

HOW TO MAKE A WIRE FENCE.

A durable wire fence can be made by planting straight-growing trees a rod or so apart and putting wires on them by means of staples after they have grown several years. Lombardy poplars are good for this purpose, as they are straight and rapid growers. They are not especially desirable trees, however, as they are easily broken by ice and wind, and in many of the Northern States they are not long-lived. There could be no objection to using apple or pear trees for this purpose, if one is pressed for room. As the trees would be in an isolated row there could be but little trouble from their being too close together. If apple trees be selected for such a purpose the more upright growing varieties should be selected. Pear trees would answer the purpose best. On small places where a permanent fence is required, fruit trees could in this manner be turned to double account.—*Rural World*.

AFTER the strawberry plants supply you with delicious fruit all the season, don't think they can shift for themselves the balance of the year. Remove all mulch and weeds and stir the soil. The plants now need stimulants, and good rich composted manures are just the thing.

POTATOES should not be allowed to remain in the ground long after the tops of the vines are dead. Dig and haul to barn or cellar floor. In two or three weeks assort and store in a dark, cool cellar. All the cut, bruised and worm-eaten potatoes and any that show the least sign of decay, should be discarded. They will not keep.

A LATE English horticulturist says that after trying all sorts of plans he was thoroughly convinced that there is nothing equal to the little-and-often system of pruning, or rather pinching. The soft young shoots can be readily removed by the finger and thumb, which is the easiest way. To which we may add that any owner who is really interested in his garden will be likely to pass among his trees and shrubs quite often, and if he sees any want or defect he will at once supply or remove it. With this view a well known cultivator remarked that his season for pruning was all the season through.

RURAL GLEANINGS FROM EXCHANGES.

MR. R. S. PAGE, lot 9, con. 9, Minden, recently cut oats which stood six feet, nine and a half inches. They are of the Norway black variety, and have very long heads filled with good solid oats.

LAST Friday morning Mr. W. Jones, Bowmanville, found his best horse strangled in the stable, having got the rope with which he was tied around his neck fastened between his hind foot and the shoe. Farmers, take warning.—*Bowmanville Statesman*.

A FARMER who moved from near Orillia to Manitoba last spring, had the forethought to pack in his trunk a number of small willow slips, which are growing well, and will possess a value out there hardly to be appreciated in this well-timbered province.

DR. PYNE, of Toronto, has disposed of his farm on the 4th concession of Morris, to Robert McMurray, of Goderich Township. The price paid was \$8,000. The farm contains 130 acres, and has good buildings and is in good condition, having been looked after by Alex. Stewart, for Dr. Pyne.

MR. W. FOLEY, near Maple Grove, has a heavily laden crab apple tree with one branch in blossom. He could not get any person to pick the blossoms on account of an old superstitious belief that the person who pick these second blossoms will die within a month afterwards.—*Orillia Times*.

MR. JOHN VOELKER, of the 12th concession of Hay, has sold his young bull calf, "Huron Duke," to Mr. Peter Kehler, who lives near Zurich, for the sum of \$100. This calf is seven months old, and obtained first prize at Zurich fair on the 19th inst. Mr. Voelker is to be congratulated on his success as a breeder of Durhams.

THE Messrs Moore, who reside a mile and a half east of Staffa, threshed on the farm of Mr. James Neal, lot 10, concession 7, Hibbert, on the 17th inst., one thousand bushels of grain in one day. About half of this grain was wheat and the remainder oats, peas and barley. If any person can beat this they should speak out and not keep their light hid under a bushel.

LAST week says the *Omenee Herald*, Mr. Wm. Gardiner cut and bound for Mr. Wm. Clarke in five hours, ten acres of oats. The machine used was a *Chatbam self-binder*, which did its work in first-class style. The crop off the ten acres was threshed in about two hours by Mr. Jos. Irwin and his steam thresher. The yield was 400 bushels. Cutting, binding and threshing ten acres of oats in seven hours is pretty quick work.

THE *Kingston Whip* says:—"Mr. James Atkinson, 6th con., Pittsburg, in giving up grain-raising for stock-raising need not regret the change of business, as the following transactions in stock sales for the present season will show: Last Thursday he sold a Percheron colt, fifteen months old, for \$150; and a span of Frontenac horses, five years old, for \$400 to an American gentleman. Last spring he sold to Mr. Webb, of Sunbury, a span of black matched colts for \$260. About two months ago he received from Mr. W. Harkness, Kingston, \$150 for some horned cattle, and has twice as many nearly ready for the shambles now. His interest in the dairy business, added to his stock sales, will make his income from stock more than \$1,500. A fact not generally known is that on stock farms excellent fields of wheat can still be raised regardless of unfavourable weather, so that indications are in favour of the farmer who goes extensively into the cattle business."

CREAM

"THE latest saying of Josh Billings runs, 'Next to a clear conscience for solid comfort cuns an old shu.'"

HARD ON JONES.—(Jones, who is in bad health, but improving, returns home.) The wife of his bosom—"Weel, an' hoo' ye noo?" Jones—"Better. In fac', I feel quite like anither man." Wife—"Am gled tae hear't. I wis getting tired o' the aul' yin." [Jones continues to improve].—*Bailie*.

"DOCTOR, I want to thank you for your great patent medicine." "It helped you, did it?" asked the doctor, very much pleased. "It helped me wonderfully." "How many bottles did you find it necessary to take?" "Oh! I didn't take any of it. My uncle took one bottle, and I am his sole heir."

THE DANGER OF INTERFERING.—(Scene—Farmers' dinner; tables well filled). Chairman—"Mr. Thamson, please tae say grace." (Mr. Thamson, with bent head, commences to whisper to himself). Farmer next him—"Speak oot, Thamson!" Mr. Thamson—"Shut up! I'm no speakin' tae you."—*Bailie*.

"Sis," said a bright Austin youth to his sister, who was putting the finishing touches on her coiffure, "you ought to marry a burglar." "What do you mean by such nonsense?" "I mean that you and a burglar would get along very well together—you have got the false locks and he has got the false keys."

A LARGE, handsome woman, elegantly dressed, with plenty of jewellery, recently entered a Cleveland horse car where every seat was occupied. No one moved, till, at length, an elderly gentleman slowly rose and offered her his seat. She took it deliberately, with an air, and then said, sternly: "You are a gentleman—a perfect gentleman. The rest is hogs!"

A SWARM OF BEES.

B patient, B prayerful, B humble, B mild
B wise as a Solon, B meek as a child;
B studious, B thoughtful, B loving, B kind;
B sure you make matter subservient to mind.
B cautious, B prudent, B trustful, B true,
B courteous to all men, be friendly with few.
B temperate in argument, pleasure, and wine.
B careful of conduct, of money, of time,
B careful, B grateful, B hopeful, B firm,
B peaceful, benevolent, willing to learn;
B courageous, B gentle, B liberal, B just,
B aspiring, B humble, because thou art dust;
B penitent, circumspect, sound in the faith,
B active, devoted; B faithful till death.
B honest, B holy, transparent, and pure;
B dependent, B Christ-like, and you'll B secure.

AN Ayrshire farmer who had been out in the late boisterous weather and got himself very wet went into a public-house in a country village and ordered a glass of whisky. After taking off the contents neat without an effort he said, "Man, that whusky's uncommon mild; it's a wee like mysel'; I think it's been oot in the rain!"

HE was a young lawyer, and was delivering his maiden speech. Like most young lawyers he was florid, rhetorical, scattering, and verbose. For four weary hours he talked at the court, and the jury, until everybody felt like lynching him. . . . when he got through, his opponent, Mr. Poland, arose, looked sweetly at the judge, and said: "M'lud, I will follow the example of my learned friend who has just finished, and submit the case without argument." Then he sat down, and the silence was oppressive.

BEES AND POULTRY.

SWARMING BEES.

Sometimes two swarms issue at the same time, if you have many colonies, and they are likely to cluster together. If you are well posted in the signs of swarming you can generally prevent two at one time, by knowing which are ready to swarm; and if two are in a fuss, bees running about, &c., sprinkle the bees outside with water and in they go out of the expected rain, your other swarm issues and is secured before number one gets over the fright (about thirty minutes) and ready again to start, but then you are ready for them. Look at your boxes of those ready to swarm and if the bees are quiet they will not swarm at once and you have time to secure one or more swarms that may be out before them, and when the latter come out if they seem inclined to join those already hived, throw some covering over the hive (table cover, sheet, &c.) to prevent them; but two or more swarms will cluster together and do quietly if hived together.

SEPARATION OF SWARMS.

Lay a sheet, &c., on the ground, shake the bees on the middle of it and put a hive on each side of them, and if an undue proportion are going to one, put that one further off, drive them in fast, and the chances are you get a queen in each hive and then put the hives say twenty-five feet apart, then if each has a queen the bees are quiet, and you are all right, if not the queenless bees are soon running wildly around, and not finding the queen soon go to the other hive where she likely is. To avoid this put the hive without a queen aside, turn the others out again on the sheet and let them return to their hive, watching closely for the queens and put one of the two in the queenless hive, but if she cannot be found the bees will do just as well together in one common-sized hive, but boxes will have to be put on at once and changed as soon as full.

HOME AGAIN.

If a swarm returns to its old hive it is likely because the queen is too heavily egg laden or her wings are not perfect, and they may do this three or four times, and if careful you may often find the queen outside, at swarming, but unable to fly; so you must put her in a queen-cage, get the empty hive and a cloth and a bottom board. Lay the latter down a short distance from the old hive (a yard or two) and when the swarm returns remove the old hive to the board and cover it with the cloth, then put the empty hive on the old stand, and put the queen in it and in a short time the swarm will enter, and can be removed to their future home and the old hive replaced on the stand.

AFTER SWARMS.

Are those that issue after the first and are called second, third, &c., and in a good season if the first swarm is not prevented by bad weather the first young queen leaves the cell in seven or eight days after, and will go out with the second swarm in say two days after. The morning of that day, listen closely for a short time close to the hive and you will hear a "peep," "peep," "peep," a piping note given rapidly several times, and then silence, and you may hear more than one, one sharp and long, the other thick and short.

NO AFTER SWARMS.

An advanced practice is to permit only the first swarm, in this way; hive the first swarm when it is ready, and one day after open the old hive and cut out the queen cells, smoke the bees and give them a laying queen, and after a few days see if she has been well received, and if so, and you have cut out all the queen cells, swarming is done in that hive for that season.

INTRODUCING A QUEEN.

Be sure first that the hive is perfectly without queens or queen cells. Second—smoke the bees so that they will fill themselves with honey. Third—give the queen the same scent as the hive she is going to, either by making or putting on her honey from that hive. Fourth—put her in quietly so she may not meet with opposition. Now remove the old queen, rub the honey on the new queen (smoke the bees well first) place her between the frames at the top (in the daytime if honey is coming in freely but at night if it is scarce,) and she will probably be taken good care of, but you must look later on to see if all is right. Some make a cage and close the open end with comb or muslin and put this in and the bees bite away the stoppers and release her. If you want to change black bees to Italians, simply remove the black queen and introduce the Italian, and in twenty-one days the young Italians are appearing and the blacks disappear in six or eight weeks, in a good season.

A CHAPTER ON POULTRY.

POLANDS.

Under this head we gather all the varieties having a prominent crest or feather tuft on top of the head, springing from a lump on the skull; and the size of this nob is in proportion to the crest, forming a good test, in early life of the chick, as to which will have the finest top-knot.

The varieties are white crested black, white crested white, black crested white, silver spangled, golden spangled, sultans, buff or chamois, and blue, grey, cuckoo, and ptarmigan are sometimes seen.

WHITE CRESTED BLACK.

Are the most common; the whole plumage is black except the head crest, which is all white when perfect, but there are always some black feathers in the front of it, but the fewer the better. The crest should be round, full and regular, covering the eyes, and for this reason the birds should not be frightened or taken up quickly, as they have been known to die of fright. And as the knob under the crest contains a large portion of their brain, they are much affected, and die rapidly if much exposed to rain. All the Polands have erect, bold and graceful carriage, the neck inclined back. Their bodies are round, plump and short, legs black or pale blue, and short, wattles bright red, ear lobes pure white, and the birds weigh from four to five pounds for the hen, to five and six pounds for the cock. You can scarcely see the comb but its shape is peculiar, being known as two horned, shaped something like an irregular letter V. The second variety is not now known but was said to be the largest, handsomest and best of all. The third variety is like the first, but has a "beard" under the chin instead of wattles, they are also much hardier, larger and finer and good layers. Their plumage is white all over.

SILVER SPANGLED.

The main colour of these is silvery white, spangled with quarter circles of black. The cock's hackles are white, edged and tipped with black, and dark tails; weight six to seven and one-half pounds, hens four to five and one-half pounds. In the hen the hackles have a spangle at the end, and her tail is clear white, ends spangled, and in both sexes the spangles should form a bar across the wings, and the breast be regularly spangled. The crest should be black at tip and base, white between, and full and regular to the centre, ear lobes white and small, not any wattles.

Birds of this variety are sometimes shown with laced feathers (a black edging with thick tips) and from these sprang the famous Sebright Bantams.

Golden spangled are like the former, except that their ground colour is golden, but the black marks are the same. The cock's tail is deep reddish, sickles black tipped, and side feathers edged with same; these also throw "laced" birds, very beautiful and popular.

Buff are like the golden, but the spangles are white, and they are beautiful also.

Sultans are small, tame, lively, are pure white, all over, legs very short and feathered to the toes, thighs thickly feathered and vulture hooked, they are also heavily ruffed and beard at the throat, and the cock has a very full sweeping tail; the crest is more erect than the other varieties, and the comb is simply two short spikes in front of crest, the legs are white, and have the fifth toe like the Dorking. They are said to be hardy and suited to confinement, and all the Polands have one advantage to a fancier that they suffer little from exhibition. Polish chicks feather rapidly and suffer much at the time, require plenty of stimulating food, and must be kept dry; the hens are good layers, the flesh is very good, and the birds make ready pets; the hens are non-setters. Polands are very subject to roup, the white crested black more so than any, but they are very handsome birds.

DORKINGS.

The common varieties are coloured, white and silver grey, of which the white is said to be the foundation stock of the others. Their bodies should be deep and full, the breast plump and carried forward, back and breast broad, and the whole form compact and neat; the cock should weigh not less than ten pounds or hen eight and one-half, though some run higher (cocks over fourteen pounds) but the white variety weighs less. The legs are white, and the foot *must* have a fifth toe behind; the comb either single or double in coloured varieties, but if single, it must be large, and quite erect in the cock.

Greys—the cock's breast may be black or mottled with white, the hackle, back, and saddle are commonly white, partly striped black, and wings nearly white with clear black bar.

Silver greys—their colour must be strictly marked; cock's breast a pure black; back, head, saddle and hackle feathers pure silver white, wings also white with strong black bar across, tail black. Hen's breast salmon colour, running to grey at the thighs, neck and head silver white with black stripes, back and wings silver grey, tail dark grey, blackish inside, and the general carriage very neat and stylish, in both sexes.

White—*should* be perfectly pure white all over, though the cocks have a tendency to yellowish colour on wings and back, the comb should be rose or double, broad at the beak, and rising to a point behind, and not dropping in the centre.

The Dorkings are thought to be the best table fowls known except game, not only plenty of meat but good quality, and in the best parts, breast, &c., and they are easily fattened. The hens are good setters and mothers and brood the chicks a long time, but they are not good layers (after a year old,) they do not bear confinement well; the chicks are delicate and hard to rear, but on a wide, dry range they prove a profitable market fowl. They are very subject to a disease (peculiar to them) called "bumble foot," an abscess on the foot for which there is no known remedy, except to let it mature and remove by the knife, and even then three birds out of five die. Dorkings are not common in America, as their eggs fail to hatch so often that breeders (to protect themselves from the often too ready accusations of unfair dealing) do not care to sell them or breed the fowls, and some years ago we had much trouble in securing a trio of silver grey Dorkings to fill an order. They cost one dollar in England.

DISAPPOINTED BEES.

In the early part of the season the prospects were bright for a large yield of honey this year in this vicinity. All the blossoms of the rose family were very abundant and well filled with nectar. The best honey is made from basswood, and the bees did well in this. The season up to the middle of June had been very encouraging, and the bees had made extravagant arrangements for their season's work. They had built comb and made cells for bees and queens in the most reckless manner, evidently anticipating a season of unusual productiveness in saccharine matter. During June and July so rapidly did they swarm that it was almost impossible for apiarists to provide hives for the colonists as fast as they came out. Their swarming was even extended into August, notwithstanding that queens were killed and measures resorted to to check the great production of bees.

In connection with this circumstance Mr. T. L. Babcock, of this county, reports a remarkable discovery. He had destroyed all the queen cells in one of his hives, but on examining the same some time afterward found queens in cells that had been originally prepared for neuters. He is positive of this, and also that the eggs had been laid in these cells for neuters. He now thinks that the sex depends not upon the egg, but upon the cell formation.

The bees worked vigorously on the early flowers, the composites, roses, lindens, buttercups and so forth, all being rich in sweetness. In June, when the white clover came, from which the second best honey is made, rains became more frequent, and they continued until late in July. When the drought began, the clover, had passed away Buckwheat. and golden rod followed but the drought worked as disastrously as the too frequent rains, and the bees could get little honey from these plants. The drought continued into September, and as a consequence the bees have had little to work on since June.

"They've done nothin' but loaf around the hives or fight an' rob their neighbours for the past two months," remarked an old bee-raiser. "And they're as ugly and hateful as all tarnation. We dassent touch a skip to take out any honey, 'cause the robbers 'll be out in a jiffy, and they'll fight and kill each other by the hundred. Do you see that little critter there buzzin' round that hive? Well, that's an Italian, and he's a robber. And there comes a Cyprian bee, too. Both mean mischief. They can whip the native bee any time in a fair stand-up fight. They're constantly robbin' the native bee, but a good many get killed for their pains.

"Why are they robbin' of each other? It's 'cause they've nothin' else to do. When flowers is plenty you don't see much of sich work. Then they're hummin' and singin' round as happy and contented as an oyster, but now the deuce's to pay with 'em. Take that, will you!" and the man struck down a Cyprian that was buzzing and dipping around in front of a hive and threatening to enter at the first opportunity.

"There's a weak swarm in that there hive that I guess I'll have to stick a match under to save it. Queer, ain't it? Killin' 'em to save 'em! But it's got to be did. 'Twon't pay to keep 'em and feed 'em fifteen or twenty pounds of honey this winter, and then mebber not pull 'em through to spring. There's several sich colonies. They swarmed late, and some on 'em haven't made a pound of honey since. They made a mighty poor beginnin' in the world and might better never sot up housekeepin' on their own hook at all."—*Decker-town (N. J.) Correspondent of the New York Tribune.*

FOR NEXT YEAR.

Farmers generally give too little attention to selecting their breeding stock of poultry. A flock of the best pure-bred fowls, if selection is neglected, will soon degenerate into a lot of scrubs. No wonder then that the flocks on so many farms have run out. The choice early hatched pullets and the plumpest, smoothest cockerels bring the best price in market. But does it pay to sacrifice them in this way for a few dollars? We think not. Much depends on feed, and a great deal on the breed, but neither will transform scrubs into profitable fowls.

Therefore, we urge upon our readers to see to it that the best of their flocks are saved for next season's use.

For the majority of farmers we advise the use of pure-bred males for crossing on the best pullets of their flocks. The first cross is in many cases superior for practical purposes to the pure stock. The extra cost of two or three cockerels in the fall is very little compared with the benefit derived from their use in a single season.

In the large breeds males above the average size are not desirable; a vigorous active bird of medium size is always to be preferred. Size may take the premium at the fair, but it don't count so much in the farmer's yard.

Males of the large breed should never be mated with Leghorn or Hamburg hens, or with any small females. If your hens are small and you wish to increase the size of your chickens, do it gradually by first mating them with a small Plymouth Rock cockerel, and next season you can use a big Brahma or Cochin. If your fowls are too big you can easily get them smaller by the use of Leghorn or Hamburg males.

In the selection of breeding stock for raising market poultry, particular attention should be given plumpness and smoothness of form. Long, "slab-sided" fowls, no matter how heavy, are not wanted in market, except at low prices.

In selecting a flock for laying purposes chiefly, roundness of form is not so important, and not even desirable. For as a rule, a long slender body, neck and shanks, combined with a large comb, indicates good laying qualities.

Those who make market eggs a specialty will do well to select the best pullets of the later broods, as well as some of the earlier ones, for the former will continue to lay later in the summer than the early hatched. In this way a continuous supply can be kept up.

THE MARKETING OF HONEY.

The *Indiana Farmer* gives the following timely hints on the above subject: One might infer by the haste with which some of our friends rush into the market with their honey that it was a perishable article, or that it was a matter of life or death that their honey should be disposed of at once. Many again have an idea that by getting in a little ahead of their neighbour they will secure better prices and quicker sales. While the facts in the case are directly the reverse. But very little honey is consumed until the cool weather comes. Customers will buy a taste of new honey and there they stop, and are satisfied until the berry, fruit and vegetable crops are out of the way. Then we may expect a good sale for our honey.

For the most satisfactory results in disposing of our honey crop, the home market should first be taken into consideration, especially when the crop to be disposed of is not very large. Honey, like all other commodities, loses in the price to the producer, the farther from home it goes to find a consumer. Large crops, of course, must seek large markets. At present we are consider-

ing only those who have a few hundred pounds to dispose of. There is scarcely a family in the land but can be induced to purchase a few pounds of honey, if offered to them in the right manner.

Our people are large consumers of sweets. The adulteration of syrups has been carried to such an extent that they have become disgusted and nauseated with them, and are in search of something to fill the want, and now is the time for bee-keepers to take action and offer to the people the products of our apiaries. Pure honey is about the only pure sweet now obtainable. As to just what shape in which the honey shall be offered depends entirely on the kind of trade you wish to supply. To home consumers, extracted honey in fruit jars, tin buckets or cans holding from three to thirty pounds, seem to give best satisfaction, but for fancy grocers' trade, the one half pound, one and two-pound glass jars suit the best. Each package, let it be what it may, should bear the producer's name. People of to-day rely much more on brands and producers' names than many suppose, or than was formerly the case, when adulteration was so little practiced.

Comb honey is marketable only in sections, the one-pounds finding preference in our larger markets. These should be packed in neat shipping-cases, holding about twenty pounds each, as such find quicker sales and are less liable to be damaged in handling.

MELTING OUT BEESWAX.

A lady correspondent in the *Pacific Rural Press* gives her experience in melting out beeswax as follows: I will not say who of our family can make the most muss while melting out wax, but even the worst one can not make much muss in my way of melting; but by the boiling out process there is too much chance for it. I have tried both ways, and know of what I say. I take the pieces of comb and press them together in as small a compass as possible, without too much trouble; then put it into the large dripper that fills the oven, or into two small ones if preferred. Make a good fire and put the pans in the oven; in a very short time it will be all melted. Then have a dish ready, also a hoop covered with house lining, and pour the melted comb into the dish through the cloth. Then fill up the pan, set it back into the oven, and take the impromptu strainer, from which all the wax will have dropped by this time, and empty the refuse into the stove to make fire for melting out more wax. The wax, in that way, is pure and clean, and much whiter than when boiled, because the water takes out the dirt and colouring matter in the comb and mixes it with the wax; and in this way I can do it much faster and with much less wood, which is quite an item in some places. Try it and see if it is not the best way.

A TIMELY POINT.

To fatten young poultry they must be cooped up in a clean, airy, but shaded coop set up some distance from the floor or ground. The coop must have a slated bottom so as to allow the droppings to fall through and be removed or covered with dry loam. Feed regularly as often as three or four times a day, as the birds will eat up clean. In a week they will do to kill and send to market.

Young chickens are very often lost in the grass when at liberty, and are frequently wet and chilled. Hence, to successfully raise a large number of chickens by hand, various means must be provided by which those of different ages can be separated, and by which the chickens can be protected and at the same time have sufficient liberty for exercise and development in the open air.

HOME CIRCLE.

MAPS AND MATRIMONY.

Everybody at Brunswick knew the old Eagle Tavern. Squire Copcutt had kept it in the old times, and when he was gathered to his fathers, his daughter Ann Jemima succeeded to the keys of the cellar.

The railway trains now whistled at the rear, where, once upon a time, the melodious stage-horn had sounded, and still the Eagle Tavern maintained its repute for the juiciest steaks and the most toothsome apple-tarts in the country.

Mr. Mapton was sitting on the porch enjoying the prospect of a dusty cross road and two half-dead willow trees when Benaiah Phillips drove up to the step.

"Guess you're the gentleman I want to see," said he, after a curious stare at the stranger.

Mr. Mapton rose promptly up.

"You're from Brunswick Centre?" said he.

"Exactly!" said Benaiah.

"Yes," said Mapton. "Just be good enough to wait a few minutes until I get my traps together."

Benaiah stared.

"Goin' to fetch them along?" said he.

"Wouldn't it save time?" said Mr. Mapton.

"Well, I don't know," said Benaiah. "Guess you understand these things better than I do. I'll thank you to be a little lively though, for the down train is due in ten minutes, and my horse don't take kindly to the cars."

So well did Mr. Mapton lay this hint to heart, that scarcely five minutes had expired before he was seated in the box-wagon on a commodious cushion of buffalo-skins, with a square black box behind him and Benaiah Phillips at his side.

Mr. Mapton, a short, stout man, with a sandy moustache and pale blue eyes, looked at the landscape. Benaiah Phillips looked at Mr. Mapton.

"A fine country this," said Mr. Mapton.

"Desp'rit lonely though," said Benaiah. "Our gals all have to go outside of Brunswick for their husbands!"

"Indeed?" said Mr. Mapton.

"Fact!" nodded Benaiah.

"You are Mr. Hosea Phillips' son, I suppose?" said Mr. Mapton, after another long silence.

"Ya-as," said Benaiah, selecting a particular straw out of the bottom of the wagon to chew. "And Jerusha's his darter."

"Yes?"

"As true's you live!" emphasized Benaiah.

"He is the chairman of the Board of School Trustees, I am given to understand?" interrogated Mr. Mapton.

"He just is," said Benaiah. "There ain't no better family than the Phillipses here, I tell you."

"Glad to hear it, I am sure," said Mr. Mapton, clinging desperately to the rail of the seat, as the wheels went bounce, bounce over the stony road.

He thought they would never reach the cozy farm house of Mr. Hosea Phillips, a deep red building, with white window casings, and a row of Lombardy poplars in front of it.

"Here we be!" said Benaiah.

Mr. Mapton climbed laboriously out of the wagon.

Benaiah cleared the space with one flying leap.

"I've fetched him, Jerusha!" said he, as the door opened and a round-faced girl appeared, with auburn-red hair, and complexion to match, and a stuffy starched calico gown, with a perfect *chevaux de frise* of flounces.

"Goodness me!" said Jerusha. "I'm all of a flutter! How do you do, sir?"

"Ma'am, I hope I see you well!" said Mr. Mapton, with a ceremonious bow.

"He's a perfect Sir Charles Grandison!" gig-

gled Jerusha, under her breath, adding aloud: "Please to walk in, sir."

And she led the way into the cool dark parlour, where there were green paper shades at the windows, a stone jar full of asparagus in the fireplace and a plaster boy, with a bow and arrow, on the mantel.

"Is your father at home?" asked Mr. Mapton, with another obeisance.

"Oh, dear, no!" said Jerusha, reddening up again. "Are you going to speak to him first?"

"It might perhaps be more seemly," said Mr. Mapton.

"Oh, good gracious!" fluttered Miss Jerusha; "but I haven't told him about—about—"

"Pray do not mention it!" said Mr. Mapton. "I shall have no difficulty in explaining my business to him myself."

"Must I call him now?" said Jerusha, lingering with pretty indecision.

"Well, perhaps 'twould be better," answered Mr. Mapton.

And softly closing the door, Miss Jerusha Phillips flew out to the barn, where her father was watering the oxen.

"Pa!" she faltered; "do put on your other coat and come into the parlour."

"Eh?" said Mr. Phillips, a great, red faced, smiling giant, with a stubby, week-old beard, and knuckles like a blacksmith. "Minister hain't come to tea, has he?"

"No; but pa—you see, pa—"

"What's the matter now?" said Mr. Phillips, as Jerusha twisted his coat button nervously around with downcast eyes.

"I've been advertising in the paper, pa," confessed Jerusha.

"Advertising!" roared the farmer. "What for?"

"For—for a husband," almost whispered Jerusha. "And the genteelst gentleman you ever saw has come to answer it. He signed his note M. M.—Manfred Manleverer—and the same initials are on the end of his valise, and he wants to see you at once."

"Well, I declare!" said Mr. Phillips, with a borean breath of amazement. "The fools ain't all dead yet."

"No. But, pa, please don't discourage him," whispered Jerusha, "because he is very gentlemanly, and all the girls will envy me so. Now, pa, do be reasonable."

"He's got to give an all-fired good account of himself," said the farmer, "before I'll let him have a darter of mine!"

"Oh, he'll do that, pa," said Jerusha. "And do make haste! Benaiah was in the secret. He posted my letters, and brought back Manleverer's from the post office. And he went to the village for me to-day; and I've made him half a dozen new cambric cravats, and mended his Sunday gloves to pay for it."

Mr. Mapton, alone in the gloom of the best parlour, thought that the chairman of the Board of Trustees never would come; and in fact it was some time before Mr. Phillips had—as he expressed it—"scrubbed himself clean and jumped into his best clothes." And then he made his appearance as majestic as Coriolanus.

"I have the honor of addressing—" said he, slowly.

"Moses Mapton, at your service," said the stranger, rising and bowing.

"Thought my gal said it was Mulliver," said Mr. Phillips. "So you want to see me, eh?"

"Yes, sir," said Mr. Mapton. "I wish to obtain your good word for—"

"Oh, you must settle all that with Jerusha," said Mr. Phillips, chuckling.

"Yes, sir, but in order to introduce—"

"My gal says that's all settled a'ready, said the farmer, broadly grinning. "I s'pose you've got good references?"

"The very best in the state," said Mr. Mapton, eagerly. "I assure you that our system is—"

"Eh?" said Mr. Phillips. "What the dickens are you talking about?"

"Will you allow me to show you a few samples," said Mr. Mapton, briskly unlocking the square black box, from which overflowed a fearful Niagara of geographical maps. "Our reputation in outlines and primary school maps is, I flatter myself, beyond all attack."

"O-o-oh!" said the farmer, "is that what you come to see about?"

"That is it, sir," said Mr. Mapton. "I am the only accredited agent of Atlas & Co., the great school-map publishers. To you, as chairman of the board of trustees—"

"Yes; but," interposed Mr. Phillips, with round eyes of wonder, "I thought—"

"Pa, pa!" whispered the voice of the fair Jerusha, from the other side of the door, "just come here a minute, please." And as the farmer presented his moon-like face in the hall, she whirled around and shut the door softly. "Pa, don't say another word," she whispered. "It's all a mistake, don't you see? Benaiah's brought the wrong man. He's a map-agent, instead of a hero of romance. Oh pa," bursting into tears, "I never was so disappointed in my life!"

"And I never was so relieved," said honest Hosea, drawing a long breath. "Never let me catch you playing us such capers again, Jerusha. No girl ever yet got a decent husband by advertising for him, and it ain't the sort of thing I like. So there now."

And by way of answer, Jerusha only dissolved into fresh tears. Mr. Mapton stayed to supper, and sold one set of his maps to the Brunswick district school ere he went on his way rejoicing. But Miss Jerusha made a very pleasant impression on his mind, and the next time he came that way he stopped again.

Mr. Manfred Manleverer, it was hardly necessary to say, never put in an appearance of any sort.

But when the apples in the orchard turned red, Mr. Mapton announced that he was going to give up the educational publication business.

"It's remunerative," said he, "but I don't like the idea of being on the road all the time. I am essentially a domestic man. I want a home. And I've bought Bell's farm, three miles south of this. And if Miss Jerusha here will become my wife and go there to take care of it—"

"Dear me—how very sudden!" said Miss Jerusha. "I'm sure I never thought of such a thing."

But she married the map agent after all, and was very happy, although his name was not "Manleverer," and he did not resemble the steel-plate engraving of "Ivanhoe" in the *Literary Annual*.

"But he's a good provider," said Jerusha, "and he says I may have one silk dress a year. It ain't every husband will do that, now, is it?"

—Helen Forrest Graves.

SUPERSTITIONS ABOUT CHILDREN.

A superstition used to exist that a child which did not cry when sprinkled in baptism would not live long. In the west of Scotland, according to James Napier, it was considered unlucky to name a child by any name before the rite of baptism was performed. When children seem prematurely smart it was believed that they would not live long. Shakespeare puts this superstition into the mouth of Richard III. Bulwer mentions

the tradition concerning children born open-handed, that they will be liberal and big-hearted. A character in one of Dekker's plays says: "I am a most wretched fellow; surely some left-handed priest christened me, I am so unlucky."

According to Irish and Scottish fairy superstitions, the elves, though in the main harmless, have the bad reputation of stealing children from the cradle and substituting for them changelings who bear resemblance to the stolen infants, but are ugly little creatures and never thrive. On such a theft of a female infant, who is carried to fairyland, but in the course of years returns to her parents, James Hogg founded his fine ballad of "Kilmeny" (Queen's Wake). In some parts of Scotland it is a popular notion among the lower classes that when a child is for the first time taken into the open air, the bearer of it should give something to eat to the first person met, otherwise the child will be unlucky. The gift is called "the bairn's piece." When a child was taken from its mother, and carried outside the bedroom for the first time after its birth, it was lucky to take it upstairs, and unlucky to take it down-stairs. It was not considered lucky to carry a baby into a neighbour's house until the mother took it herself; and this it was unlucky for even her to do, until she had been to church.

It was considered unlucky for children to walk backwards while going on an errand. It was deemed unlucky to measure a baby; and if its nails were cut before it was a year old, it would turn out a thief. It was unlucky for a boy to wear trousers made on a Friday; and to sweep dust over the feet of the girls would prevent them from getting husbands. In Hindostan, when a baby sneezes, the mother snaps her thumb and finger, and repeats aloud the name of one of her gods. When a child casts a tooth, in South Sweden, the tooth is thrown into the fire. In Switzerland it is carefully wrapped in paper and salt inclosed with it before it is thrown into the fire. In Herrick's time, it was regarded as a lucky omen to place a knife near a sleeping child. Good Friday and Easter Sunday were considered lucky days for changing the caps of children.

In the west of England, the fortunes of children are believed to be largely regulated by the day of the week on which they are born:

Monday's child is fair in the face,
Tuesday's child is full of grace,
Wednesday's child is full of woe,
Thursday's child has far to go,
Friday's child is loving and giving,
Saturday's child works hard for its living,
And a child that is born on Christmas day
Is fair and wise, good and gay.

Among some of the tribes in Africa, if two babies come to a family at the same time, they think it an awful thing. Nobody except the family can go into the tent were they were born, nor use any of the things in it. The twins are not allowed to play with other children, and the mother cannot talk to any one outside of the family. This is kept up for six years. If the babies live to be six years old, the restrictions are removed, and they are treated like other children.—*The Current*.

DANGER IN COOKING UTENSILS.

Apart from the danger which, according to doctors, we run of being poisoned by nearly every description of food we eat, there is another risk quite as serious involved by the consumption of cooked food, however wholesome of itself, which has not yet received the attention it deserves. It is to be feared that a thorough overhauling of kitchen utensils, even in well-regulated households, would lead to some alarming revelations from a sanitary point of view as to the condition of these articles. Some remarks bearing on this point which may be of value to those who are

anxious to preserve life and health are to be found in the report of the Inland Revenue Laboratory for the past year, just issued. Speaking of samples received at the Laboratory for analysis from the Admiralty, the report says that special attention appears to have been directed by that department to the character of the enamel linings of cooking utensils. It is well known that most of the enamel contain considerable quantities of lead and arsenic in condition easily acted on by vegetable acids, and many of the specimens analyzed consisted of the enamel and glaze of dishes suspected to contain those metals. The results of the analysis showed the necessity of the examination; for many of the enamels contained dangerous quantities of lead and arsenic, and proved that most of the utensils could not be recommended to be used with safety, while a few showed that it was practicable to prepare an enamel and glaze free from hurtful substances. The moral to be drawn from these observations is: Look not only to the food you eat, but also to the vessel in which it is cooked.—*St. James' Gazette*.

DON'T BE IN A HURRY.

Don't be in a hurry to answer yes or no;
Nothing's lost by being reasonably slow.
In a hasty moment you may give consent,
And through years of torment leisurely repent.

If a lover seeks you to become his wife,
Happiness or misery may be yours for life;
Don't be in a hurry your feelings to confess,
But think the matter over before you answer yes.

Should one ask forgiveness for a grave offence,
Honest tears betraying earnest penitence,
Pity and console him and his fears allay,
And don't be in a hurry to drive the child away.

Hurry brings us worry; worry wears us out.
Easy-going people know what they're about.
Heedless haste will bring us surely to the ditch,
And trouble overwhelms us if we hurry to be rich.

Don't be in a hurry to throw yourself away;
By the side of wisdom for a while delay
Make your life worth living; nobly act your part;
And don't be in a hurry to spoil it at the start.

Don't be in a hurry to speak an angry word;
Don't be in a hurry to spread the tale you've heard.
Don't be in a hurry with evil ones to go;
And don't be in a hurry to answer yes or no.

FORFEITS.

They sent him round the circle far
To bow before the prettiest there.
I'm bound to say the choice he made
A creditable taste displayed;
Although—I can't say what it meant—
The little maid looked ill-content.

His task was then anew begun—
To kneel before the wittiest one.
Once more that little maid sought he
And went down upon his knee.
She bent her eyes upon the floor—
I think she thought the game a bore.

He circled then—his sweet behest
To kiss the one he loved the best.
For all she frowned, for all she chid,
He kissed that little maid, he did.
And then—'though why I can't decide—
The little maid looked satisfied.

WOULDN'T AGREE TO "OBEY."

Generally speaking, marriages pass off very smoothly, and frequently with very pretty effects. The brides are credited with a careful study and perusal of the service for many days beforehand; sometimes there has been a rehearsal. I have known brides, when the grooms have failed to make the proper responses, prompt them immediately and with the greatest facility. The most common mistake of the bride is to take off only one of her gloves, whereas both hands are brought into requisition in the service. As for the men, they commit all kinds of blunders and bunglings. I have known a man at that very nervous and trying moment, follow a clergyman within the communion rails, and prepare to take

a place opposite him. I have known a man, when a minister stretched out his hand to unite those of the couple, take it vigorously in his own and give it a hearty shake. Sometimes more serious difficulties occur. Some ladies have had an almost unconquerable reluctance to use the word "obey;" one or two, if their own statements are to be accepted, have ingeniously constructed the word "nobey." The word, however, has still to be formally admitted into the language. There was one girl, who was being married by a very kindly old clergyman, who absolutely refused to utter the word "obey." The minister suggested that, if she were unwilling to utter the word aloud, she should whisper it to him; but the young lady refused to accept even this kind of compromise. Further, however, than this the clergyman refused to accommodate her; but when he was forced to dismiss them all without proceeding any further, the recalcitrant young person consented to "obey."—*London Society*.

THE DEMAND FOR FARMERS' WIVES.

The young man who works out, saves his money, and finally buys a farm, and wants to live a sober, independent, and honest yeoman, is not altogether extinct, although he is not as frequent as he was thirty years ago. This class of men have little time to cultivate the graces, but they have homely virtues, and their occupation gives them robust judgment and well balanced minds upon the basis of their common-school education. They are sometimes cultured, in the best sense—not of books, but of nature, as Thoreau was, although the farmer's life has a somewhat materializing tendency. But it is no worse to get avaricious for sheep, acres and hay-mows, than it is for "first editions," old antirons, and distant ancestors.

But (according to the *Springfield Republican*) these young farmers find it difficult to find wives. Girls of excellent sense will cast their affections on young clerks of most precarious prospects, professional sprigs, and men of no business whatever, rather than accept the lot of the farmer's wife. There is probably some reason for it: for woman, with all her perversity, generally thinks she knows what she is about. We fear the trouble is a suspicion that the lot of the farmer's wife is severe, and the man of the acres develops more affection for his cattle than for the wife of his bosom. This is but a superficial opinion, however, and there is probably more domestic happiness under the roofs of the farmers than in all the mansions of the big cities, per capita. A bright and capable woman will make a good home of the farm, and not be overloaded by its burdens. There occurs to us just now the fine enthusiasm of a scholarly woman in middle life, going on an Ohio farm for the first time since she left her father's acres in New England, and plunging into the mysteries of dairy, poultry, cereal, and other crops, astonishing the natives because she does not milk, but still more by the things she does do. No woman of spirit would find farm life empty of the satisfactions of life.

YOUNG MEN!—READ THIS.

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

BEN BOLT.



Andante.

p

First system of piano introduction, featuring treble and bass staves with a dynamic marking of *p*.

f

Second system of piano introduction, featuring treble and bass staves with a dynamic marking of *f*.

Oh! don't you re-mem-ber sweet Al-ice, Ben Bolt, Sweet Al-ice with hair so

First system of the vocal line with lyrics, featuring a treble staff and a bass staff.

brown; She wept with de-light when you gave her a smile, And trembled with fear at your

Second system of the vocal line with lyrics, featuring a treble staff and a bass staff.

frown, In the old church-yard in the val-ley, Ben Bolt, In a corner obscure and a -

- lone, They have fitted a slab of gran - ite so gray, And sweet Alice lies un - der the

stone: They have fitted a slab of granite so gray, And sweet Alice lies un - der the
ca - lan - do. ad lib.
ca - lan - do. colla voce.

stone.

Rall.

2

Oh! don't you remember the wood, BEN BOLT,
 Near the green sunny slope of the hill;
 Where oft' we have sung 'neath its wide-spreading shade
 And kept time to the click of the mill.
 The mill has gone to decay, BEN BOLT,
 And a quiet now reigns all around;
 See, the old rustic porch with its roses so sweet,
 Lies scatter'd and fallen to the ground.

3

Oh! don't you remember the School, BEN BOLT,
 And the Master so kind and so true,
 And the little nook by the clear running brook
 Where we gathered the flow'rs as they grew.
 On the Master's grave grows the grass, BEN BOLT,
 And the running little brook is now dry;
 And of all the friends who were schoolmates then,
 There remains, BEN, but you and I.

YOUNG CANADA.

HEIDELBERG CASTLE.

Among the many places of interest best known to the average tourist in Europe, is the romantic old town of Heidelberg. Its situation and surroundings render it picturesque. Nestling among hills whose slopes are well wooded and covered with vineyards, with the swift flowing Neckar sweeping past its base the town presents an attractive appearance to the many people who ascend the Rhine and are sure to visit Heidelberg.

As is the case with most places of antiquity in Germany, many authentic and many fabulous legends cluster around the various places of interest in this famous old town. It is the seat of a renowned university, where numerous students assemble, some to study with diligence, others to waste precious time in the frolics common to the Burschen of all German universities. Some of the most learned professors have shed lustre on the famous university of Heidelberg.

Every visitor to this quiet old town is sure to visit the Castle, an engraving of which appears

picture gallery, where the portraits of long forgotten occupants look grimly down upon the many visitors who find their way to this historic pile. The great promenade is much frequented by the citizens, and the outlines of the massive octagonal tower is a conspicuous object. The town built under the shadow of the castle is in harmony with the living present; the massive old ruin testifies of the vanished part.

JACKO AND POLLY.

The great fun was to watch her and Jacko in their contests for the upper perch. Polly, having taken her tiffin, was disposed for an afternoon nap, and she accordingly commenced to mount the rope ladder, but Jacko immediately set up a chatter, savagely showing his teeth meanwhile, and shaking the rope violently to impede the movements of Polly. In spite of this, up she goes steadily, hand over hand, nearer to the coveted perch, on which sits the monkey in a boiling passion, and trembling with excitement. Holding on by his tail and hind legs, he now attempts to get hold of Polly, but she snaps at his hands

rope ladder, down which her stealthy enemy slipped like a serpent, and making a snatch, caught her by the base of her tail. At that moment a well-directed branch of bananas from me hit him in the chest, and down he came, whereupon Polly seized him by the fleshy part of the lower arm, and bit it through. This was a lesson which he never forgot, and although his devilment compelled him to annoy Polly as a source of fun, still he grew to respect if he did not love her.

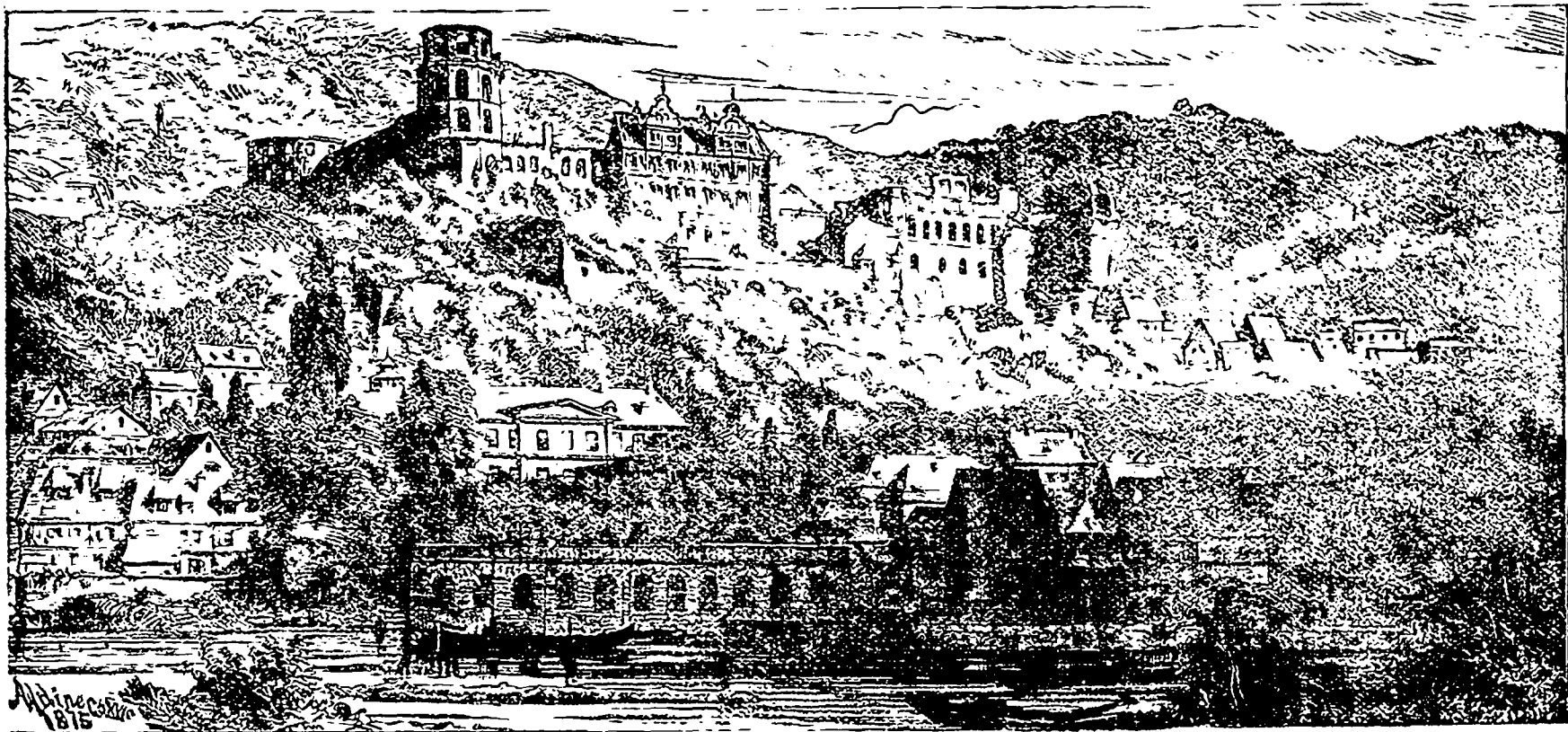
SOME QUEER ANTS.

"What would you think to see an ant carrying a parasol?" said Uncle Fred.

"Oh, uncle!" cried Johnny and Pass at the same time.

"You know an ant could not carry a parasol," added Pass.

Their uncle had just come home from a trip to the West Indies and South America. He had a great many wonderful stories to tell them about the queer sights he had seen. But they thought he must be joking with them now, for they could not believe that an ant could do such a thing.



HEIDELBERG CASTLE.

in this number. It is now only a vast ruin. Its founder, centuries ago, may not have been much influenced by the beauty of the site, when they made their selection. Strength and capability of defence were the chief requirements in those days. It was built for safety and protection. Many a time it was put to the test, in the numerous wars and the less honourable assaults of the robber barons, who lived by plunder mainly.

One of the most interesting historical associations connected with the castle of Heidelberg is, that for a time it was the house of Elector Frederick and his wife Elizabeth Stuart, grand daughter of the unfortunate Mary Queen of Scots and daughter of James I., of England. During their residence at Heidelberg, the castle was the scene of great and frequent festivities. Like all the members of the unfortunate race to which she belonged, after a brief season of prosperity her life was darkened by misfortune. She was chosen Queen of Bohemia, but instead of ascending the throne she was cast into a dungeon where she died broken hearted.

The part of the castle not in ruins has been fitted up by the municipality as a museum and

right and left, with a rapidity that is perfectly astounding, and presently a shriek of pain announces that her beak has drawn blood, and down drops poor Jacko like a stone, while Polly takes quiet possession of the perch, when, after repeating a few self-congratulatory notes, she dozes off as if nothing had happened. Jacko, meanwhile, sits upon his haunches examining his bite with a very rueful countenance, but a little petting from me sets him right, and a thorough examination of everything eatable and drinkable having been made, he goes regularly to work to "blow the steam off." Making the rope ladder his centre, he performs a series of splendid jumps to it from all the articles of furniture in the room, much to the disgust of Polly, and then, after a headlong rush round the apartment, he bounds up the ladder like a flash of lightning and makes a grab at Polly's tail, dropping at once to the ground, to escape the consequences of this daring act. The bird, however, was never injured by him in this way, for she watched his every movement. The only time that he ever stole a march upon her was once when she happened to be feeding in the sand tray immediately beneath the

"Well," said Uncle Fred, "their parasols were not made of silk stretched over a wire frame. They were only pieces of leaves from trees, and the ants held them in their mouths in such a way that they covered their bodies entirely. You could not see the ants at all, so the leaves looked as if they were marching along of their own accord. The first time I saw any was in the West Indies. One day, when I was riding with a friend out to his plantation, a great swarm of these ants crossed our road. We watched them a long time. It was a queer sight, I assure you. They did not travel very fast. There must have been thousands and thousands of them, for we could not see either end of the column."

"Where were they going, I wonder," said Johnny.

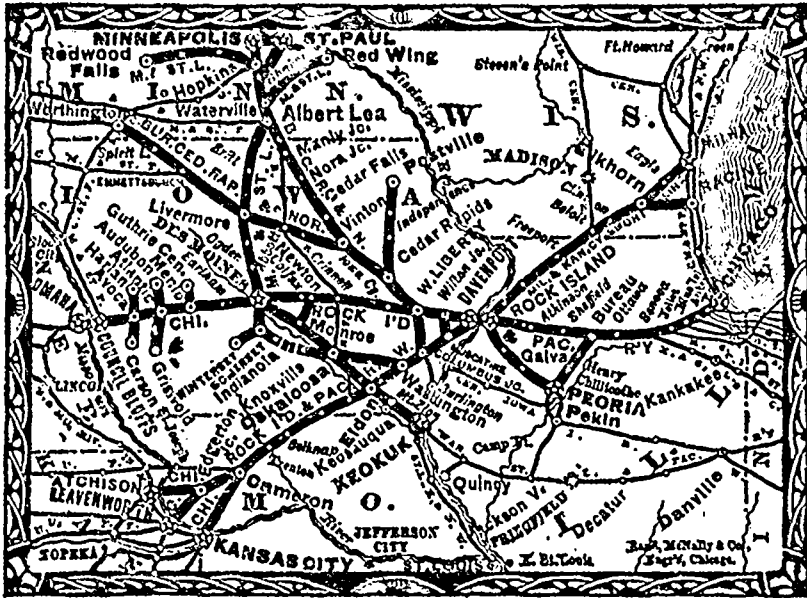
"They were carrying the leaves to their nests. They do not eat the leaves, but they are very fond of a fungus which grows on them after they have been a little while in their underground nests. The ants are very destructive, and do a great deal of damage. Sometimes they will cut every leaf off a tree."

"Don't we have any here?" asked Pass, who was much interested, and wished she could see some.

"No," said Uncle Fred. "We have some curious ants, but none like those I have been telling you about."—*Our Little Ones.*



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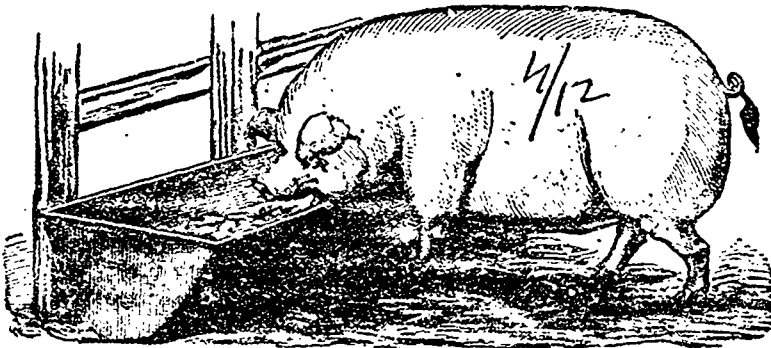
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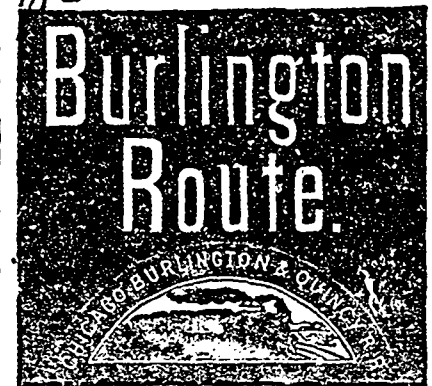
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184 Yonge Street (third store above Queen),

2/12 TORONTO.

We buy our goods in the best and cheapest markets, and sell on the smallest living profit. We mark all goods in plain figures, and make no second price. Our terms are cash down or C. O. D. We keep only such goods as we can honestly recommend, believing that the seller has as much interest in the value of the article as the buyer. Customers putting up at hotels in the vicinity of the Market, are supplied with tickets for Street Cars free.

UNEXCELLED.

In our Dress Department the variety, the styles and the cheapness of the goods we are showing, is such as to astonish every one.

For \$1.00, \$1.25, \$1.50, \$2.00, \$2.50, \$3.00 and up to \$100.00, you can secure a full dress length of the newest style of dress goods, the benefit of a large stock to select from, may be understood when we state that we are showing about 1,000 pieces of new dress, embracing Ottoman Cloths, Foulle Cloths, Ottoman Satens, Trocino Cloths, Combination Stripes, Checks, Spots, and Brocades. We invite the inspection of our stock by all intending purchasers before going elsewhere.

UNDER TRIBUTE.

The looms of Germany and France have been put to their utmost to supply the demand for Velvets and Plushes for the present season's trade, and which is without a precedent in the history of the trade and manufacturers today will only take orders at our advance of from 20 to 25 per cent. Our stock, which includes over 100 pieces, was all bought before the advance, and consequently we can give our customers the benefit of our early purchase at low prices. In plain Black Velvet our prices are 25c., 30c., 33c., 35c., 45c., 50c., 60c., 75c., \$1.00, \$1.25, \$1.50; in colours our prices are 50c., 75c., and \$1.00; for fast pile dress Velvet and in Black and Coloured Brocade, our prices are 80c., 90c., \$1.00, \$1.25, \$1.50, and in all the newest shades to match our dress goods. We are showing special value in Plain and Brocades in all the new Fall shades.

Mantles and Mantle Cloths.

We have made extra preparations for this department and are now offering great inducements to buyers. Double-width Scotch Tweeds in Checks and Plain, at 75c., 90c., \$1.00 and \$1.25. Heavy double-width and Milder Cloth in all colours, at 50c., 75c., 90c., and \$1.00. Jersey Cloth (double-width), at \$2.00, \$2.50, and up. Ottoman Cloth (double-width), in Black, Seal, Brown, Garnet, Myrtle and Navy Blue. 6-4 Black Wool Mattalasse Cloth, \$2.75 and up; 4-4 and 6-4 Black and Brown Silk Mattalasse Cloth, from \$2.50 up to \$5.50. Sallette for Mantles, from \$2.00 up to \$12.00 per yard. Mantle ornaments, Fringes, Clasps, Hooks, Buttons, and Fur Trimmings in great variety.

KEEP WARM.

Being fully alive to the requirements of the season, we have purchased manufacturers for spot cash a large line of Twilled, Canadian Blankets, which we will sell at close prices. We can sell a good large blanket at \$2.50, \$3.00, \$3.50, \$4.00, \$4.50 and \$5.00. We can give you the largest and best Blankets made in Grey, White and Blue Flannels. We can give you heavy makes in all Wool at 17c., 20c., 25c. and 30c. Men's Shirts and Drawers at 33c., 45c. and 50c. At 67c. we give you a heavy all wool Shirt or Pants of about a pound weight.

ASK FOR THEM.

COTTONS.

Cotton goods are not going to be any lower, in fact, the tendency is rather up than down, still, having bought at the low prices we can still offer a good Factory Cotton at 4c., 5c., 6c., 7c., and the best, a yard wide, for 8c.; our yard wide Cotton at 3c. "is an eye opener." Yard wide heavy Twilled Sheetting at 10c. and 12c. White double-width Sheetting (Twilled), 20c. and 25c. Unbleached double-width Sheetting (Twilled), 25c. and 30c. White Cottons at 5c., 6c., 7c. and 8c.; our 9c. and 10c. White Cotton is full yard wide, very heavy, soft, and free from starch, worth from 12c. to 15c. Heavy Canton Flannels at 9c., 10c., 12c., 16c., and the best made for 20c. Coloured Canton Flannel at 16c. in all shades. Ticking for straw or feathers at 12c., 16c., 20c. or 25c.

CALL AND SEE US.

WANTED, 10,000 HANDS

For Kid Gloves. We do a very large trade, often selling 100 pairs in one day. We offer a new line of stiff a Kid Gloves at \$1.00, being the same line as sold everywhere at \$1.25. Long Chamnois Gloves at 35c. and 50c. Job line of black and coloured, 2 button kid, at 20c.
2 Button, black and coloured, at 40c., worth 85c.
3 and 4 Button, black and coloured, at 50c., worth 90c.
4 Clasp, black and coloured, at 75c., worth \$1.00.
6 Button, black and coloured, at \$1.00, worth \$1.35.
8 Button, opera shades, at 75c., worth \$1.25.
3 Button, opera shades, at 30c., worth 85c., in 5, 5, 5, and 6 only. We want 5,000 ladies' with two hands each to wear our Gloves.

BUSTED.

See our Moulded Bust Corsets with Spoon Busk and well boned, at 50c., all sizes. Coraline Corsets with Double Busk and side steels, beautifully embroidered, 75c., all sizes. Dr. Ball's Health Corsets, with Coiled Wiro Springs, Elastic Sides (contains no rubber), at \$1.00, all sizes. Dr. Warner's Health Corsets with shoulder straps, side steels, and well boned, \$1.25, all sizes. Thomson's Celebrated Corsets, all makes and sizes. French Woven Corsets, all sizes, at \$1.00 and \$1.35. Cardinal, Old Gold and Black Satin Corsets, all sizes, at \$1.25. Misses Corsets in every size and kind. Children's Corsets and Waists, all sizes. Those wishing a perfect-fitting Corset are invited to give us a call.

FALL OPENING

Our Fall Opening has been very successful and attracted many buyers. Our show of Millinery is magnificent, and the prices are low. We show a fine assortment of new Walking Jackets, new Dolmans, new Ulsters, in latest shapes and materials. Our Dress and Mantle making department is very busy with orders. We only make up our own materials, and accept no materials to make up that have been bought elsewhere. We extend a cordial invitation to the public to inspect our stock and compare prices with others, leaving the result in their own hands.

TERMS CASH.

FAMILY MOURNING.

Goods suitable for Mourning we keep a full assorted stock, and complete Mourning Outfits can be got upon very short notice.

Mourning Cashmere, Paramattas, Henrietta cloth, Crapo cloth, and many other makes of goods always in stock at low prices.

The best makes of Courtauld's Silk "Rain proof" Crapo at 75c., \$1.00, \$1.25, \$1.50, \$2.00, \$2.50, \$3.00 and \$3.75. Mourning Millinery in stock or made to order.

Shawls and Mantles suitable for Mourning always on hand or made up to order in the latest styles. For large Mourning orders special DISCOUNTS always allowed.

J. M. HAMILTON, 184 Yonge Street, third Store above Queen, Toronto.

WHAT IS CATARRH?

(From the Toronto (Canada) "Star")

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

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

Some time since a well-known physician of forty years' standing, after much experimenting, succeeded in discovering the necessary combination of ingredients which never fails in absolutely and permanently eradicating this horrible disease, whether standing for one year or forty years. Those who may be suffering from the above disease should, without delay, communicate with the business manager, Messrs. A. H. DIXON & SON, 305 King Street West, Toronto, and get full particulars and treatment free by enclosing stamp.

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

Messrs. A. H. Dixon & Son: OAKLAND, ONTARIO, CANADA, March 17, 1883.
Dear Sirs,—Yours of the 13th inst. to hand. It seems almost too good to be true that I am cured of Catarrh, but I know that I am. I have had no return of the disease and never felt better in my life. I have tried so many things for catarrh, suffered so much and for so many years, that it is hard for me to realize that I am really better.
I consider that mine was a very bad case. It was aggravated and chronic, involving the throat as well as the nasal passages, and I thought I would require the three treatments, but feel fully cured by the two sent me, and I am thankful that I was ever induced to send to you.
You are at liberty to use this letter, stating that I have been cured at two treatments, and I shall gladly recommend your remedy to some of my friends who are sufferers.

Yours, with many thanks,
RAY, F. B. STEVENSON.

A New Treatment
FOR THE
RAPID AND
PERMANENT
CURE OF
CATARRH
NO 305 KING ST.
WEST. TORONTO, CANADA.