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Farm Journal, Canadian Farmer and Dairyman.

VOLUME X., No. 3.

TORONTO, MARCH, 1887.

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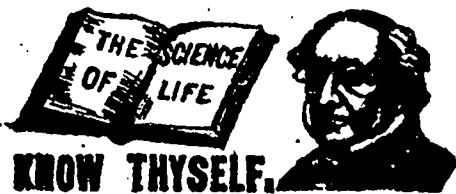
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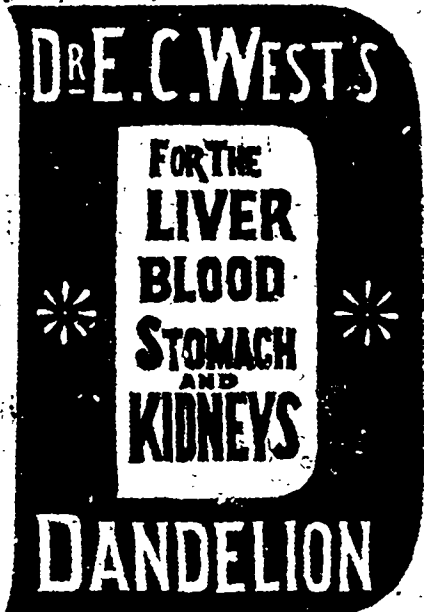
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The Rural Canadian.

VOLUME X., No 3.

TORONTO, MARCH, 1887.

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The Rural Canadian.

TORONTO, MARCH, 1887.

TESTING SEEDS.

A great deal of vexation of spirit and disappointment can be spared by the proper testing of samples of seeds, which are about to be sown. It is only a question of a few days less than a week. A great flourish is being made of the fact that persons will shortly be able to send seeds to have their vitality tested at the new Experimental Farm at Ottawa. Our friends can just as satisfactorily, and with far less trouble, test their own seeds at home by any of the following simple methods:

Take a sheet of blotting paper, upon which count 100 seeds; cover with another piece of blotting paper; dampen and keep damp. Place beside a stove or in some warm place, at a temperature of seventy to seventy-five degrees; in four or five days the seeds will have germinated. By counting the number of unspouted seeds the exact percentage of reliable seed can readily be arrived at. White flannel may be substituted for the bottom layer of blotting paper; a common brick, placed in water sufficient to reach nearly to its top without covering, will answer to place the seeds on; or a piece of cloth folded in two, and laid in a small box containing damp earth, the seeds to be put between the folds of the cloth, covering the whole with an inch of soil. Leave for a week; raise the upper fold of the cloth, and with it the top soil. The good seeds will soon be perceptible. Any of these plans are inexpensive, and can be relied upon. By counting out one hundred seeds, the percentage is more easily arrived at than by putting in a quantity, such as a spoonful or a pinch. The heat need not be kept so high at night; by allowing it to drop a little will be following nature.

To examine samples for other seed: Take a piece of black board, or a dark coloured cover to a book, spread a small quantity upon it, and the strangers will be on view. Examining by rubbing in the palm of the hand is not reliable.

ARTIFICIAL MANURES.

So much fraud has been practised on the agricultural community by dealers in so-called artificial manures that the Dominion Government last year passed an Act of Parliament to protect farmers from these swindlers. This act came into force on January last. Manufacturers or importers will now have to deposit samples of their fertilizers with the Minister of Inland Revenue, with a certified analysis of their contents. A copy of that analysis must be on every parcel, package, bag or barrel containing the fertilizer when delivered to the purchaser. If the material does not come up to expectation, the purchaser can forward samples to the Minister to be compared with the deposited sample; and should it be lacking in any of the properties, heavy penalties can be inflicted. The certificates have to be printed or branded distinctly, and affixed in such a manner that there will be no danger of their being lost.

The purchaser will be able to know from the analysis the quantity of the several articles composing the fertilizer. He can by these means ascertain whether he is paying too much, as he can easily get to know the commercial values of the different materials. So it will be the farmer's own fault if he is swindled into paying \$40 per ton for stuff worth only about \$2, as has frequently been done. It is not a great while since a pretended manufacturer from Guelph took in a lot of agriculturists by selling phosphate in bags, of course taking their notes in payment. When delivered it was nothing else but dried night-soil, a spoonful or two of ammonia being thrown into each bag to give it a strong smell. Farmers, beware of vendors who rely upon their samples smelling strongly of ammonia. A single spoonful will give a strong odour to a quantity of other material. Ask to see the analysis, and keep a copy when ordering your artificial manure. The passing of this useful law means death to sanding guano, and we may now expect to get the pure quill, and do our own adulterating.

SUPERPHOSPHATE can be cheaply made by mixing one hundred pounds of bones with thirty-five pounds of sulphuric acid and ten pounds of water. The bones should be placed in an old barrel, the larger ones broken to help to dissolve. Then pour about half of the acid into the water; stir the mass, and in a few hours add the balance of the acid. As this will be rather strong, it will be advisable to reduce by mixing a little plaster. Be careful that the sulphuric acid does not touch the clothing or person of the operator, else it will leave its mark.

SUBSCRIBE NOW FOR THE RURAL. The farmer who does not take it is himself the loser.

FARM AND FIELD.

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

I HAVE attended a great many farmers' meetings of one kind and another in the course of my life, but it was my privilege to be present at one held in Exeter, Ont., February 1 and 2, which, to use an agricultural phrase, was "the cap-sheaf" of them all. It was a meeting of the South Huron Farmers' Institute, organized by a deputation of professors from the Ontario Agricultural College, about a year ago. This Institute was born so strong that it found itself able to run alone at about the age when a robust and thriving baby takes to its feet. On the occasion I refer to there were no professors in attendance. All the papers and addresses were given by actual and practical farmers. Mr. Shaw, editor of the *Canadian Live Stock Journal*, Mr. McA. Allen, "the apple king" of Goderich, and myself, were present, but we only claim to be plain toilers in the fields of husbandry. We had no official dignity to uphold, and were "hail fellows well met" in a good sense, on that memorable occasion, for such it was. Memorable for social fellowship, and for unusually interesting discussions, and for a certain air of sprightly intellectual vigour, not often characteristic of such gatherings, was the meeting in question.

ONE of its most pleasing features was the extent to which local farmers took part in the proceedings. I have lost the few notes I took, and my memory of names is very treacherous; hence I cannot mention all who were prominent speakers, which I should much like to do. One of the first to take the floor was Mr. McQuade, one of the oldest settlers in the neighbourhood, who found himself at an early day located on a farm composed of good soil, but requiring to be drained in order to make it productive. Not having capital to drain the place properly, he at first thought of selling out, and getting a drier farm somewhere. But being unable to find a purchaser, he concluded to grapple with the drainage problem, and master it little by little. His account of his first attempts, failures and successes, was about as instructive a bit of agricultural experience as one could wish to hear. Suffice it to say, he persevered until he became "master of the situation," and what he does not know about underdraining a farm is hardly worth knowing. After his interesting talk on the subject, for he spoke without manuscript, he was subjected to a running fire of questions, all of which he answered in a most satisfactory manner. I noticed in the last number of *THE RURAL CANADIAN* a statement to the effect that the recent meeting of the North York Farmers' Institute was not a brilliant success, owing to the paucity of speakers able to give interesting practical instruction. I beg to suggest that next winter they send for Mr. McQuade to talk to them about his hobby, for such it is and he rides it well.

THE upshot of the drainage portion of the proceedings was that this "betterment" lengthens out the working

and growing season, enabling the farmer to get on his land early in spring, and put his crops in so as to take time by the forelock; that heavy summer showers do not wash the surface, but sink speedily into the porous soil; that fall rains do not interfere with fall ploughing; that the crop average is increased so as to pay for the cost of drainage, and a profit over; that open drains, drains of loose stone, and wooden drains are not comparable with tile drains; and that the ordinary farmer, if he will only study up the subject and "make haste slowly," can carry out this improvement in a thoroughly satisfactory manner.

MY paper on "Exhaustion of the Soil, and its Remedies," was well received, thoroughly discussed, and its suggestions as to the means of land enrichment, especially by the judicious use of clovering, responded to in a way that showed the farmers present to be awake and alive to this important matter. The subject of manuring, the question how best to procure, husband and apply the manurial resources of the farm, and kindred topics, received a large measure of attention. Stock-raising and cattle feeding were gone into very fully. Papers by Mr. Symons and another practical stockman whose name I unfortunately forgot, relating to this important branch of rural economy, attracted much attention, and were well discussed. Questions directly to the point were asked and answered promptly, and a deep impression made as to the importance of improving the beef-producing qualities of cattle by the use of high class bulls exclusively.

MR. SHAW read a capital paper on "Permanent Pastures," in the course of which he fell foul of Prof. Brown, and objected to his recipe for seeding down, as including grasses not fitted to this country, also prescribing too large quantities of seed, involving needless cost and considerable waste. While eulogizing the stress laid by the Professor on the necessity of improving our grass lands, he was of the opinion that meadows and pastures could only be permanent to a limited extent in this country, the comparatively small size of most farms rendering it indispensable that grass should chiefly come in the course of regular crop rotations. It would have added zest to the occasion if Prof. Brown had been present to answer for himself. He is no slouch in this or any other branch of practical farming, and it would have been "just fun" for editor and professor to have crossed lances in relation to the matter.

MR. ALLEN gave us a most valuable talk on "Fruit-growing," and laid down the rules of orchard management in a very clear and forcible way. He had just returned from the Colonial and Indian Exhibition, where he had charge of the Canadian fruit display. The apples from South Huron were a conspicuous feature in the exhibit, and Mr. Allen strongly urged those present to maintain and improve their orchards. He told them what kinds of apples and pears brought the best price in the English market, and gave ample directions how best to grow, pack and sell them. The importance of manuring orchards, the principles of pruning, the way

to guard against insect pests of the various kinds of fruit, and many other practical topics were dwelt on, and a multitude of questions answered.

We had a second paper from Mr. Shaw on "The Construction of Barns," especially with a view to cattle feeding and dairying. The writer also gave a second paper on scientific dairy practice, mainly bearing on the production of a better quality of butter. In the course of the discussions that arose on these papers, the winter water supply for stock was prominent. Several gave their experience as to the use of ice-cold and warmer water. The necessity of some provision whereby cattle could have water of moderate temperature without exposure to cold winds was made clearly apparent, and various devices to this end were specified. Mr. Symons insisted strongly on giving stock daily exercise in sheltered barn-yards, and his views obtained general concurrence. A farmer who had studied up the creamery subject, read a paper in relation thereto, which led to a full and free interchange of opinion. The importance of greater attention to dairy products, both in a private way and by the establishment of cheese factories and creameries was generally recognized.

On the evening of the first day a social entertainment was held in a very nice hall, which was filled by a large audience, partly from the village and partly from the surrounding country. The good people of Exeter, who evidently possess an unusual share of musical ability and taste, are to be commended for the successful efforts they made to render this entertainment enjoyable. A brass band, a chorus club of eight members, a cornet, harmonica and guitar, together with solos and duets, accompanied by an excellent reed organ well played, combined to make an admirable musical concert. Brief speeches were sandwiched in between the vocal and instrumental performances. The affair was free of charge, and was highly appreciated by all present. It was a model entertainment of its kind, and I have the pleasure in holding it up as an example well worthy of imitation.

I CANNOT but think that these Farmers' Institutes are destined to do much good as local schools of agriculture, and it is particularly gratifying to me that they seem to be taking root in the country, because in my report on which the Ontario Agricultural College was based, I pointed this out as one of the ways in which the professors might do great good in the winter season, when the farmers are able to assemble in conventions of this kind. These Institutes appear more adapted to the circumstances and convenience of the agricultural community than either Farmers' Clubs or Granges. It is difficult to maintain the interest in meetings held so often as once a month or once a fortnight. They almost invariably die out in summer, and even in the winter are apt to flag. But a two or three days' meeting in the winter time, for which special preparation can be made both by speakers and attendants, only needs to be energetically managed, as it was in this

case by the president, Mr. Smiley, and the secretary, Mr. McMurdie, aided by a working committee, to secure the most desirable results.

By no means the least interesting part of the Institute was the intercourse had out of doors and between whiles. There were "walks and talks," consultations and caucuses, during the intervals of the sessions, about which I meant to say something in this article, but it has already exceeded its due bounds. Pleasant acquaintances were formed or renewed, and more of that social feeling fostered which so much needs to be increased among the farming population. Cowper concludes his poem on John Gilpin by saying:

And when he next doth ride abroad
May I be there to see,

And I close by expressing the hope that when the South Huron Farmers' Institute next assembles, I may be there to participate in the pleasure and profit of the occasion.

W. F. C.

VALUE OF MANURE.

The following useful tables, showing the most valuable fertilizing properties to be found in ordinary manures, together with their present commercial values, were made use of by Prof. C. C. James, of the Ontario Agricultural College, in his address delivered at several of the recently held Farmers' Institutes:

Solids.	Water.	Nitric acid 17 cents.	Phosphoric acid.	Potash.	Lime.	Value.
Horse.....	15.14	8.8	7.0	7.0	3.0	\$2.27
Cattle.....	16.76	5.8	3.4	2.0	6.8	1.29
Sheep.....	13.10	11.0	6.2	3.0	9.2	2.39
Swine.....	16.40	12.0	8.2	5.0	1.8	2.67
Average....	15.35	9.4	6.2	4.4	5.2	2.17
Hen.....	11.20	32.6	30.8	17.0	4.8	7.24
Human....	15.44	20.0	21.8	5.0	12.4	4.96

Liquids.		10½ cts.	8	5½		
Horse.....	18.02	31.0	.....	30.0	9.0	\$7.39
Cattle.....	18.76	11.6	.....	9.8	0.2	2.67
Sheep.....	17.44	39.0	0.2	45.2	3.2	9.71
Swine.....	19.34	8.6	1.4	16.6	.....	2.61
Average....	18.39	22.6	0.4	25.4	3.1	5.61
Human....	19.26	12.0	3.4	0.4	0.4	2.74

Mixed with litter.						
Horse.....	14.26	11.6	5.6	10.6	4.2	\$2.98
Cattle.....	15.50	6.8	3.2	8.0	6.2	1.83
Sheep.....	12.92	16.6	4.6	13.4	6.6	3.92
Swine.....	14.48	9.0	3.8	12.0	1.6	2.46
{ Barnyard common.	14.20	9.0	4.2	10.4	11.4	2.41
{ Well rotted Drainage from yard.	15.80	11.6	6.0	10.0	17.6	3.19
	19.64	3.0	0.2	9.8	0.6	1.07

The above are known as Wolf's tables, but the professor has re-arranged the values to suit the present times.

It will be seen that hen manure is the most valuable of the solids, yet how few of our farmers take the precaution of saving it by itself? This can be easily done,

and with all the valuable properties retained, by spreading coal ashes, dry earth or plaster under the roosts, and placing all together in barrels when cleaning up. Where only a dozen or so fowls are kept, it is astonishing the quantity that will accumulate in a few days.

The next solid in value is human excrement—more than double that made by any description of cattle. One of our best farmers in the county of York makes extensive use of this class of fertilizer, teaming it from the city of Toronto, where after being removed from the privies, it is stored in large heaps for about two years. By that time it becomes deodorized, and is in appearance somewhat like swamp muck, easy to handle. In that shape it fetches about two dollars a load, which, compared with the figures given above, is cheap. For top dressing it is of the greatest value, as it so easily becomes soluble. It is also of great value in potato and root growing.

But it is in the liquid form that we find the greatest value. On how many farms do we find adequate measures taken to preserve these valuable properties, and bring them into use on the farm? Scarcely a barnyard, but is so constructed that this most valuable matter, after a certain quantity has accumulated, runs away to waste in those black streaks which are too often to be seen from the dung pile into the neighbouring drain. It is generally admitted that swamp muck forms one of the best absorbents which should be placed in the stables for that purpose, and will pay for the trouble. If muck cannot be conveniently procured, a supply of dry earth or sawdust should be kept on hand, although the latter has no value as a fertilizer, yet it becomes very useful by reason of its great absorbing powers.

When our farmers turn their attention to saving more liquid manures made in their stables, we shall hear less of diminution of crops.

One of the most frequent causes of the manure heaps not being able to absorb more of the liquid from the animals is the want of eave-spouts to the barns and other buildings. The consequence is that the flush of water from the roofs washes away the more valuable parts of the manure, filling the dung pile so full of moisture that it is incapable of absorbing any more, and waste is the result. It is but poor economy not having eave-troughs to buildings, and thus save and put to proper use the rainfall.

To judge of a man's cattle, swine, poultry or other farm breeding stock, we should see the whole herd or flock. Men take only their best stock to the exhibitions. They test their best cows, and give the weight of their heaviest animals, and then too often ask buyers to expect that these extra animals represent fairly their entire stock. Thousands of dollars have been paid for inferior animals which had no other merit than a near relationship to some superior individual. Do not form an opinion of a man's breeding stock wholly by the character of the animals he shows at the fair. Go and see his whole herd before buying.

RURAL RAMBLES.

BY OUR SPECIAL COMMISSIONER.

MAPLE GROVE.

It would be interesting to know how many Maple Grove farms there are in Ontario. It seems as if nearly every other farm is named after the maple, and that there was no other title available. The Maple Grove which we are about to bring under the notice of our readers is situated at Edgely, in the county of York, and is the residence of Mr. Simon Shunk, a man well known among the admirers of Holstein cattle. The farm is about 200 acres in extent, nearly level, and is in one of the best farming sections in Canada. A good locality tells its own tale in the fine residences and substantial buildings; among the best must be classed those on Mr. Shunk's estate. The dwelling is a large, two-storied brick house, surrounded by extensive pleasure grounds, well laid out, and ornamented with shrubs and trees. From the gate to the house the path is flanked by a fine cedar hedge, well trimmed to the height of about four feet. It was quite refreshing to see these two strips of green when all around was dazzling in snowy whiteness.

The barns and other outbuildings are painted red; trimmed with white, materially adding to the appearance of the property. We wish more of our Canadian farmers would indulge their buildings with a lick of paint, if only for appearance's sake. While riding with a neighbour of Mr. Shunk's, we passed the remark that we generally found good stock upon the farms where the barns are painted and looked tidy. "Yes," responded our friend, "it is those very farmers who are rich, and can afford to pay fancy prices for cattle, who can also afford to decorate their buildings." We pointed out to our friend that it was from the fact of keeping high class cattle that better prices were realized, and more money made, than by keeping poor stock. It costs no more to raise a pure-bred than a scrub. The first outlay for animals from which to breed is the only expense; after that the natural increase soon forms a herd of valuable animals, which sell at remunerative figures. That is how their owners can afford to ornament their barns and surroundings.

Mr. Shunk's herd of Holsteins number about a dozen. The demand for that class of cattle having been brisk, this herd is considerably reduced in numbers. The bull at the head of the lot is named "Earl Barrington," coming three years of age. He is a remarkably fine animal, weighing about 1,800 pounds—and anything but fat. In fact, it might safely be said that he was on the lean side. The females are "Lady Moll," a grand cow, just calved; "Lizzie," Jessalina" and "Bernia" were also beautiful specimens of their race, with their black-and-white skins shining like satin. One excellent trait of the Holsteins is their extreme docility.

The heifer, "Edgely Bell," two years old, is a beauty; she has been sold, and goes to start another Holstein herd. There were also several fine yearlings, and four of the largest calves we ever saw at their age—all

dropped during the past few weeks; yet they were as large as most calves are when the summer is half over.

The young bull, "Earl Barrington 2nd," a yearling, is no disgrace to his sire; he promises to grow into a strapping animal.

In the straw-yard we noticed some good grades, by Holstein bulls, out of common cows; the dams were pointed out to us, and the appearance of the offspring was a decided improvement. Their owner informed us that he intends to keep on crossing these grades with pure-bred bulls, and by that means get a lot of improved milch cows.

Mr. Shunk is also a breeder of first-class horses, keeping a fine specimen of a Canadian-bred Clydesdale stallion upon the premises, and some excellent draught mares. Besides these there is a handsome pair of well-bred carriage mares, prize-winners at many fairs, including the Toronto Industrial. We were shown a pair of last year's colts, from these mares, for which the handsome figure of \$400 was refused last fall. Here is another example of the benefits to be derived from breeding with high-class animals of all descriptions. In this instance, more can be had for one colt, when only a few months old, than could be realized for most full grown colts, as ordinarily bred by our farmers.

Passing up Yonge Street, near Richmond Hill, we called at

LORRIDGE FARM,

the residence of Mr. Robert Marsh, to have a look at his celebrated flock of Southdown sheep, and, as was to be expected, found them in first-class condition, with their owner daily expecting a crop of lambs. We have before described LorrIDGE Farm, so shall refrain from doing so now.

This valuable flock of sheep is another living testimony to the value of pure breeding, if it is only in the prize ring, where Mr Marsh annually carries off about \$500; while the expense of attending the various fairs does not amount to much more than one-third of that amount. Then the sales are away up with brisk demand; while the price received for a single sheep would suffice to purchase a small flock of inferior bred animals. The wool also fetches higher prices, and the weight of fleece is heavier. The establishing of a flock like the LorrIDGE one cannot be done without the exercise of judgment and a considerable outlay of money; and unless a person has the taste for breeding sheep, he had better keep aloof. Mr. Marsh tells many interesting stories of his earlier struggles, and the obstacles to be overcome before reaching the top notch.

To obtain the best sheep he frequently has had to pay prices which would have staggered many breeders; but securing the best, at no matter what cost, has amply repaid the enterprising owner. To keep up the high reputation of his flock, Mr. Marsh has yearly to import from the best flocks in the Old Country. This is because Southdowns develop earlier in England than they do with us; besides there are many fine flocks to select from, and the honour of possessing winners of firsts at

the Royal Show greatly adds to the reputation of a flock in this country.

MARKHAM FARMERS' CLUB

is one of the strongest organizations of farmers in the Dominion. In addition to their periodical meetings for discussing topics of importance to the farmers, they annually have an extra gathering, in the shape of a banquet, which is graced by the presence of the wives, daughters and lady friends of the members of the club. After dinner, addresses are delivered to the older members, by gentlemen prominently connected with the agricultural interests; while the younger ones trip the light fantastic toe along with their fair partners.

The success of this year's gathering was materially interfered with by one of the heaviest snow storms we have experienced this winter, blocking up the roads and almost completely stopping travel. A meeting of the few members present was held, at which it was decided to postpone the annual meeting to the following week; and what should have been an instructive, sociable evening proved disappointing to those who had assembled.

STEELE, BROS. & CO.'S SEED WAREHOUSE.

Although it cannot be described as a rural ramble, yet a description of a seed establishment will doubtless prove of interest to those of our readers who have not had an opportunity of seeing one themselves. For that purpose we paid a visit to Messrs. Steele, Bros. & Co.'s, of Toronto, one of the largest establishments of the kind in Canada.

The front portion of the ground floor, overlooking Toronto's hay market, is the retail store—a fine, lofty apartment. In rear of this are the offices, in which five or six book keepers are busily engaged. Behind the offices, the warehouse stands.

Up the elevator we went to the top story, which we found filled with bags of seed, piled up to the roof, tier after tier. All these had to undergo a thorough cleansing, although to an ordinary person this seed seemed as free from foreign matters as possible. The front part of this spacious room is divided off. Here we saw all the appliances for bag-making and printing labels, Messrs. Steele's business being so extensive that it actually pays them to have all this kind of work done upon the premises.

Descending to the next flat, we found the rear occupied as a cleansing room; two fanning-mills were raised upon a platform about five feet high. Into these mills,—driven by a fine engine situated in the basement—the seed is conveyed by shoots from the upper floor. Our first impression, on looking at the seed before it entered the mills, was that it was wasting time; but, after it had passed through, and we saw the quantity of foreign seed and dirt separated from it, we were compelled to alter our opinion. We mention this fact to show how careful wholesale merchants are to send out only the best seed.

Another part of this floor is used for the grass department. Seventeen varieties of grasses, besides clover, were stored in large bins. A farmer ordering any par

particular mixture of grasses, the order is executed in this apartment, without any danger of other seeds getting into the mixture. Other compartments are similarly used for other descriptions of seeds.

We next came to the large front room. Here was all activity and bustle. This is the box department, where those neat little boxes seen at the grocery or country store, filled with small packages of flower and vegetable seeds, are made up. About a dozen young ladies were as busy as bees, some filling the packages, others placing them into the boxes. These, when filled, were secured by male clerks, and removed for shipment. From five to six thousand of these boxes are issued annually from this establishment. The boxes do not all contain the same description of seeds, because what would be suitable for the Maritime Provinces would not answer for the North-West, Messrs. Steele, Bros. & Co.'s business extending all over the Dominion. For turnip seed these gentlemen have long been famous. We noticed large stacks of packages about six inches in length. "Insecticides!" was our remark, pointing toward them. "No, sir, turnip seed," was the reply; "we sell many tons made up in that manner, as well as in bulk." A light corner of the box-room is devoted to testing the vitality of seeds. The apparatus was something like a hotbed frame. The seeds were sown in pots and placed on a long tray, beneath which hot water circulated, the heat being maintained by gas jets, glass lights covering the whole concern. A record of all tests is kept, showing the age of the seed, percentage of vitality, etc. "Where do you get all this seed?" was our inquiry. "Well, we grow a deal by contract, in suitable localities all over the continent, and import a lot from the United States, Great Britain, France and Germany. We also do a large export trade with these countries. Sometimes they are short of a particular seed, and we have a surplus crop. It is always on the change. We also grow all the varieties of seed on our experimental farm, where everything in the vegetable or seed line has a thorough testing." A description of that part of Messrs. Steele's establishment will have to be deferred till the summer, when we hope to pay it a visit.

AN HORTICULTURAL INSTITUTE.

The market gardeners of the county of York, having banded themselves together as an association, for mutual protection and improvement, held an Horticultural Institute in Carlton West, a suburb of Toronto, on the 2nd and 3rd of February. Although the weather on the opening day was the most severe we have experienced this winter, the attendance of members was excellent.

Professors Mills and Panton, from the Ontario Agricultural College, at Guelph, were in attendance. The latter gentleman gave great satisfaction to the meeting by furnishing information on most of the subjects under discussion, explaining, in a most lucid manner, the scientific details, so that even the most ignorant could understand; also answering questions promptly, with gratifying results.

As we are at all times as willing to give praise

when it is merited, as we are to condemn errors, we may say that in our opinion the gentlemen from the college will do more to popularize Farmers' Institutes and similar gatherings by taking example from Prof. Panton, giving information, instead of indulging in so much cross-questioning. Agriculturalists attend these meetings for enlightenment; remove the selfish motive, and their interest flags.

Of all the Institutes we have attended, that of the York gardeners was decidedly the most instructive, the information disseminated being of the most practical nature. The idea was expressed that there was plenty of room for more extensive operations in market-gardening. The speakers were anything but selfish, pointing out that for the earlier vegetables Canada depended greatly on the United States, whereas she is quite able, to supply her own demands if the horticulturists would only set about it in the proper manner; and that there was room for plenty more to engage in the business. Facts and figures were given in support of these statements.

Mr. Briggs, of the firm of Steele, Bros. & Co., seedsmen, of Toronto, was present, and gave much valuable information respecting seeds, showing how frequently seeds were sold by various firms under different names; opening the eyes of his hearers on many points. A paper by this gentleman, on "Insects and Insecticides," appears in another part of this journal. Other papers read will also appear in the different departments, in this and subsequent issues.

KALAMAZOO COUNTY (MICH.) AGRICULTURAL SOCIETY.

The Executive Committee of the Kalamazoo (Mich.) Agricultural Society have thoroughly examined the Higgin's Eureka Salt, at our last County Fair. In our judgment it is the best salt now in use for preserving butter, the superiority of its manufacture placing it in advance of any other salt.

W. H. COBB, *President.*
FRANK LITTLE, *Secretary.*
W. H. McCOURT, *Treasurer.*

Most fanciers are ambitious to have early hatched chickens. It cannot be expected that birds hatched in January or February can surmount the unnatural position in which they are placed. If exposed, they suffer from cold; and if confined in close rooms, the want of fresh air, and of natural green and insect feed, produces poor results. Birds hatched after the cold weather has become a thing of the past will invariably overtake their earlier bred brethren, because, if given dry coops, they will not know what it is to have their growth checked, but will be strong and vigorous right along to maturity. Rheumatism and cramp are the diseases which mostly affect early hatched chickens, caused by their running on the cold, damp earth.

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Miscellaneous.

A CHANCE for hotel clerks. The crown jewels of France are to be sold.

THE children who make slides on the sidewalks ought to be turned over to the slipper.

IF the "masses" gave up their "glasses," many of them would soon rank in the "classes."

A MAGAZINE writer asks: "What is true joy?" True joy is what a woman feels when a committee at a country fair declares that her crazy quilt is prettier than all the assembled crazy quilts of her neighbours.

CONVALESCENT (to doctor): Now that I am on the road to recovery, doctor, I think you may as well send in your bill. Physician: Not yet, sir. I want to avoid any risk of a relapse.

IN announcing a visit of her Majesty to Scotland, a Scottish paper said: Preparations are now being made for her reception, several tradesmen having received orders to be immediately executed at Balmoral.

"How beautifully that woman sings!" said one lady to another, who was in gorgeous attire and blazing with diamonds. "Is she a mezzo-soprano?" "No, I guess not. I think she is a Swede," replied the other.

FRENCH coach horses are attracting the attention of American breeders. Savage & Farnum, proprietors of Island Home stock farm, Grosse Isle, Wayne Co., Mich., have added a few fine French coachers to their magnificent stud of Percherons.

A GOOD wife never grumbles. A good horse never stumbles. A good child never tumbles. A good cart never rumbles. A good preacher never mumbles. Good yarn never jumbles. Honest work never humbles.

GROSSE ISLE, the largest island on the Detroit river, ten miles below the city, was first occupied by the French over one hundred years ago. It is now occupied principally by French horses—imported Percherons. Here is located the famous Island Home stock farm, owned by Savage & Farnum.

WHEN the small boy reaches the dentist's to have a tooth removed, his toothache departs. Would, exclaimed a husband, that a woman's ache for a bonnet would fly as quickly and positively on reaching the modiste's.

THE Chicago, Burlington & Quincy R. R. Co. has published a pronouncing Dictionary containing 320 pages, 32,000 words and 670 engravings. It teaches everybody how to pronounce correctly. Send sixteen cents in stamps to PAUL MORRIS, G. P. and T. A., O. B. & Q. R. R., Chicago, Ill., and get a copy of the Dictionary—the cheapest book issued.

ANASTASIA (about to be married): "Ned, see if this reads all right for the invitations: 'Your presence is requested—'" Devoted brother: "Stop there, sis! It isn't grammatical. You mean: 'Your presents are requested.'"

THE picture of the famous Percheron stallion Jupiter, painted by Rosa Bonheur, is attracting a great deal of attention in Paris. Jupiter himself is owned by Savage & Farnum, proprietors of the Island Home stud of Percheron horses, Grosse Isle, Wayne Co., Mich. A very good engraving of him, made from Rosa Bonheur's sketch, appears in their catalogue.

INJUSTICE CORRECTED.**CONVINCING VERIFICATION OF WIDECAST PUBLIC STATEMENTS.**

To the Readers of *The Rural Canadian*.

In common with many publishers and editors, we have been accustomed to look upon certain statements which we have seen in our columns as merely adroit advertising.

Consequently, we feel justified in taking the liberty of printing a few points from a private letter recently received from one of our largest patrons, as a sort of confession of faith to our readers. We quote:

"We have convinced ourselves that by telling what we know to be true, we have produced at last permanent conviction in the public mind. Seven years ago we stated what the national disease of this country was, and that it was rapidly increasing. Three years ago we stated that a marked check had been given to it.

"The statistics of one of the largest life insurance companies of this country shows that in 1883 and 1884, the mortality from kidney disorders did not increase over the previous years; other companies stated the same thing. It is not presumptuous for us to claim credit for checking these ravages.

"Seven years ago we stated that the condition of the kidneys was the key to the condition of health; within the past five years all careful life insurance companies have conceded the truth of this statement, for, whereas, ten years ago, chemical analysis to determine the condition of the kidneys was not required, to-day millions of dollars in risks are refused, because chemical examination discovers unsuspected diseases of the kidneys.

"Seven years ago, we stated that the ravages of Bright's Disease were insignificant, compared with other unsuspected disorders of the kidneys of many misleading names: that ninety-three per cent. of human ailments are attributable to deranged kidneys, which fills the blood with uric acid, or kidney poison, which causes these many fatal diseases.

"The uric acid, or kidney poison, is the real cause of the majority of cases of paralysis, apoplexy, heart disease, convulsions, pneumonia, consumption, and insanity; over half the victims of consumption are first the victims of diseased kidneys.

"When the recent death of an honoured ex-official of the United States was announced, his physician said that although he was suffering from Bright's Disease, that was not the cause of death. He was not frank enough to admit that the apoplexy, which overtook him in his bed, was the fatal effect of the kidney poison in the blood, which had eaten away the substance of the arteries and brain; nor was Logan's physician honest enough to state that his fatal rheumatism was caused by kidney acid in the blood.

"If the doctors would state in official reports the original cause of death, the people of this country would be alarmed, yea, nearly panic stricken, at the fearful mortality from kidney disorders."

The writers of the above letter give these facts to the public simply to justify the claims that they have made, that "if the kidneys and liver are kept in a healthy condition by the use of Warner's safe cure, which hundreds of thousands have proved to be a specific, when all other remedies failed, and that has received the endorsement of the highest medical talent in Europe, Australasia and America, many a life would be prolonged and the happiness of the people preserved. It is successful with so many

different diseases because it and it alone, can remove the uric acid from the blood through the kidneys."

Our readers are familiar with the preparation named.

Commendation thereof has often appeared in our columns.

We believe it to be one of the best, if not the best ever manufactured. We know the proprietors are men of character and influence.

We are certain that they have awakened a wide-spread interest in the public mind concerning the importance of the kidneys. We believe with them that they are the key to health, and that for their restoration from disease and maintenance in health, there is nothing equal to this great remedy.

The proprietors say they "do not glory in this universal prevalence of disease, but having started out with the purpose of spreading the merits of Warner's safe cure before the world, because it cured our senior proprietor, who was given up by doctors as incurable, we feel it our duty to state the facts and leave the public to its own inferences. We point to our claims, and to their public and universal verification with pride, and if the public does not believe what we say, we tell them to ask their friends and neighbours what they think about our preparations."

As stated above, we most cordially commend the perusal of this correspondence by our readers, believing that in so doing, we are fulfilling a simple public obligation.

A BOON TO FARMERS.

There are many farmers, as well as their wives and daughters, who find their daily tasks weigh heavily upon them, owing to a lack of strength or vitality. The men suffer from pains in the side or back, from lumbago, rheumatism, or general debility, the women, from one or more of those diseases peculiar to their sex, which in some cases cause untold agony each succeeding month. Medicines seem to have no effect, and hundreds of dollars are thereby wasted in vain efforts to bring back lost health and spirits. There is one agency, however, which will accomplish this desirable object, and that is Electricity, but hitherto the cost and inconvenience of application has rendered its introduction almost impossible. But "science works wonders," and it has at last given us Electric appliances which can be worn at all times without the slightest inconvenience, and at a cost which brings them within the reach of all. The Oriental Medicated Electric Belt Co. offer a belt perfect in every particular for the sum of \$2, and guarantee it will do all they claim for it or they will refund your money. They furnish the best of references, showing many instances in which their belt has really worked wonders. Their headquarters is at No. 3 King Street West, Toronto.

CONSUMPTION CURED.

An old physician, retired from practice, having had placed in his hands by an East India missionary the formula of a simple vegetable remedy for the speedy and permanent cure of Consumption, Bronchitis, Catarrh, Asthma and all Throat and Lung Affections, also a positive and radical cure for Nervous Debility and all Nervous Complaints, after having tested its wonderful curative powers in thousands of cases, has felt it his duty to make it known to his suffering fellows. Actuated by this motive and a desire to relieve human suffering, I will send free of charge, to all who desire it this recipe in German, French or English, with full directions for preparing and using. Send by mail by addressing with stamp, naming this paper, W. A. NOZZES, 149 Power's Block Rochester N. Y.

GARDEN AND ORCHARD.

THE FLOWER GARDEN.

Soon will the winter of our discontent be turned into glorious summer, but, before that happy time arrives, it will not be out of order, if we do a little gardening by the side of the stove, when sheltering from the rude winds of March and the rains of April. We shall then be in a better position to beautify our rural homes, when glorious summer does arrive. When the surroundings of a dwelling have an attractive appearance, they command attention not only from those who live near, but also from passers by, who will pause to admire, and not unfrequently profit by what they see. There are few who do not love flowers, beautiful flowers, and when home is made attractive, the children love that home, and there is but little desire to leave it. To make home thus attractive is not a costly affair, as the seeds of nearly all the most beautiful and fragrant flowers can be obtained in 5 and 10 cent packages, and when a dollar's worth is purchased, the price per packet is still lower. A flower garden is thus within the reach of all rural residents. We purpose giving brief descriptions of some of the more popular and suitable flowers which should be found in every farmer's garden.

Where the space for growing flowers is somewhat limited, a good method for securing greater variety is by neighbours clubbing together in making their purchases. By this means they can obtain seeds of choicer specimens, when with careful sowing, it will frequently be found that there is sufficient seed for two small gardens.

To our annuals we are mainly indebted for our brightest flowers. In summer and autumn, without them, our gardens would be poor indeed. So we will begin with that class.

The Aster.—No flower is more popular than this, and it is still growing in favour. For an autumn flower it is not excelled by any other annual. Give them rich deep soil, mulching with coarse manure, and the results will be most gratifying. As it is not desirable to have early flowers, the seed should not be sown till about the middle of May, sow in boxes, and when the young plants are in the rough leaves, transfer to other boxes, placing them about a couple of inches apart. In two or three weeks they can be set out in their blooming quarters. Care should be taken in transplanting to remove plenty of earth with the roots. An occasional application of liquid manure will greatly improve the size of the blooms. Of Asters there are many varieties, and colours but for most gardens Truffant's Peony Flow-



DWARF ASTER.

ered, for the taller, and the New Chrysanthemum Flowered, in the dwarf classes, will be found about as good as any. Asters like the cool dewy nights late in summer, without which the blooms are not nearly so large.

The Adonis, or Pheasant Eye.—Is a nice little plant, growing about twelve inches in height, having pretty foliage and bright scarlet flowers; as it does well in partial shade, it may be used with advantage in any retired corner of the garden. Sow early in spring.

Balsams.—Are exceedingly popular, and have been much improved of late years, through good cultivation. Our climate is wonderfully adapted to the successful growing of Balsams. They can be trimmed to any form, some growers cutting off the smaller branches, leaving only the straight stem, but that is all a matter of taste. The Balsams love a warm place. To get the best results the seed should be sown in boxes under glass, or indoors, kept well watered, and the plants put out of doors when the really warm weather has arrived; they flourish fairly well, when the seed is sown after the soil is warm.



BALSAM.

Candytuft.—Is one of the gems of the garden, blooming freely for a long time, and its neat little clusters of flowers are quite a treasure to the bouquet maker. As it is hardy, the seeds may be sown early in spring. If the young plants are

crowded, draw a few out.

Convolvulus minor.—Is the dwarf Morning Glory. The flowers are small; the plant has a trailing habit; each plant will cover a space of two feet or more. Sown in beds, they form a beautiful mass.

The Dianthus.—Is better known as Chinese or Japan Pink, and is among the most brilliant of flowers. The plants are about twelve inches high. Sow on the beds when the ground has become perfectly warm.

The Godetia.—Is well deserving of culture, being very beautiful, profuse bloomers; their delicate tints of crimson, rose and white render them very attractive.

Gaillardia, or Blanket Flowers.—Are good for bedding annuals, being very effective and showy, continuing in bloom during summer and autumn. Brilliant in colour. The plants should be from twelve to eighteen inches apart.

The Gilia.—Is another free bloomer, looking best when in masses; they grow about six inches in height.

Larkspurs.—Are very beautiful, with dense spikes of flowers, very fine for cutting. Sow early in spring.

Lobelia.—Form beautiful borders. The flowers are mostly blue, the plants are of a trailing habit, making them valuable for baskets, vases, etc.

Mignonette.—Scarcely needs describing. Sown early in spring in the open ground will give flowers of delightful fragrance during the whole of summer. It can be sown as a border, or in clusters.

Nasturtiums.—Are valuable because they will stand any amount of heat and drought. The dwarf varieties are used for bedding plants; many persons prefer them to Geraniums. When there is a shyness in flowering, some of the leaves should be cut off. The climbing varieties are useful to hide unsightly places, or to cover a trellis or rockeries. They are profuse bloomers, very rich in colour.

Portulaca.—Is a popular hardy creeping annual, with flowers of almost every hue. It delights in warm sandy soil, and the drought is never too long for it. Sown in small beds, or on rock-work, it looks the prettiest.

Petunia.—Seed sown in spring will produce flowering plants in June. For brilliancy and variety of colour, and abundance of blossoms of long duration, the Petunia is unexcelled. It is indispensable in the flower garden. There are two distinct kinds of single Petunias, the Grandiflora sorts with large flowers, and the small flowered section, which give abundance of bloom; these latter are the best for showy beds. But for single plants or groups the Grandiflora are admirable, the flowers being of such large size.

Salpiglossis.—Is a splendid half hardy annual, with flowers of peculiar richness, very delicately and beautifully pencilled. Seeds should be started early under glass. Prefers a light rich soil, but will do well if sown in the open ground.

Stocks (Ten-Week).—Seeds may be sown in the open ground early. The Stock is one of the most beautiful favourites of the flower garden. The flowers are of the most brilliant colour, and highly perfumed. It is as well to sow the Intermediate variety as well, to come into bloom directly after the Ten-Week variety have got through with their brilliant display. If sown in boxes, the young plants should be transplanted directly they have their rough leaf.

Verbenas.—Are well known, and justly popular for bedding. They produce the best results when the seed is sown under glass, or indoors in boxes, and trans-

planted when about three inches high. The flowers make a gorgeous display, especially when in large clusters, or in beds. Pegging the main stems down to the earth, with large hair pins or wooden pegs, will induce a greater abundance of blossoms. They will commence flowering in July, and continue till the frost destroys them.

Whitlavis.—Will grow freely in almost any soil; the flowers are blue and white, drooping, and in clusters; they are very hardy; but don't like dry, hot weather, so they are best when sown in the shade.

The Zinnia.—Is a large free growing flower, so easily grown and handsome that it will always be popular. The double variety is mostly preferred. The young plants

can be easily transplanted. As the plants grow to the height of about two feet, with strong stems, they make a capital background to a bed, or when sown down the



PETUNIA.



STOCK.



WHITLAVIAS.



middle of a long bed, with the other flowers on either front, they greatly add to the beauty of the scene.

(To be continued.)

TOMATO CULTURE.

BY F. C. MILLER.

No vegetable has risen higher in public favour during the past few years than the tomato. From a comparatively few acres grown a short time since the cultivation of it now reaches, around the suburbs of Toronto, to upward of 200 acres annually. It is worthy of still more extended consideration at the hands of horticulturists. Glass is necessary for its early production; and a steady even growth in beds is better than a hasty one. The time of sowing depends upon the object for which they are grown and the quantity to be grown. March 1 to 15 is soon enough for an early crop, and May 15 has not been too late with me for a general one. Sowing the seed in drills in beds enables you to

keep the beds free from weeds; while broadcast will generally give more room to the plants. The heat of the bed should be about sixty degrees, with a rise and fall of a few degrees of temperature for sun and shade. Give air to the bed at the side farthest from the wind, and be sparing of water in the early stages, unless the weather is very sunny; commence transplanting as soon as the rough leaves appear. Twice transplanting will make stronger and stockier plants, make a better root, enables you to set the plants down lower in the bed, and checks the appearance of the first blossom, which otherwise is often too hastily developed.

The bed should now be ready, and the soil light and rich; an admixture of sand will cause a free growth of roots. The first transplanting need not take up much space, say a couple of inches apart both ways under a sash 3 x 6 x 6 feet; you can thus treat about 700 plants. Much watchfulness and care are now required. If the heat of the bed has risen or fallen, the plants are liable to damp off, and unless some shade be given, they are liable to be scorched by the sun. About three weeks will be sufficient for this stage of growth. Their next removal, if an extra early crop is desired, will be into pot or basket. This mode will give more room to the plants in the bed, if desired; save you much trouble in planting out and hasten the crop a week or ten days, but if these are not available, they should be transplanted not less than from five to six inches apart both ways in a bed. Water and air should be given freely after the plants have struck, especially in fine weather, and the increase in brightness; the glass may be removed altogether during the day, protection being given in chilly and frosty nights. Look out for those plants whose tops touch the glass, and, prior to their final removal, harden off by taking the glass off altogether and abstaining from watering for a short time. In transplanting into the open, too much care cannot be given to the removal of the plants from the beds, especially in a dry time and when pots or baskets are not used, a thorough watering prior to this may be necessary.

A few words now about the land for planting and its preparation. A clover sod on a light sand loam, ploughed in spring, about the middle of May, when the clover had well started, gave an excellent growth of plants without any inconvenience in cultivating. Plant immediately the land is fresh worked. A piece of black loam I have had in a crop to this plant for several years has hitherto done well. Four feet apart each way is room enough in general; but when the soil is strong and the plant a rank grower, an extra foot in the row will not be amiss.

VARIETIES.

The Acme, Paragon, Favourite, Perfection and Beauty are all that can be desired in colour, shape and texture, but unfortunately for the Livingstone Family they are too fastidious as to where they are planted, shy setters of their early blossoms, which drop off at every puff of wind and freely rot. I dislike very much their rank wild growth. In fact, I am no lover of them.

My favourite is the Conqueror. In this variety we

have a fine grower, finding itself at home in loamy soil, never losing its first blossoms except through the cultivator's own carelessness, fruit good in colour, perhaps a little irregular but an enormous cropper, rarely rotting, and ripening early. It is rightly named the Conqueror, my motto being, "Handsome is that handsome does." My crop produced 700 bushels last year to the acre, and I have reached probably 1,000 on patches of good plants receiving extra care.

Cultivating the land should commence immediately the plants have started to grow. If plants are set out on the square, I prefer cultivating both ways. Cultivate often, and until the plants are too large to admit the cultivator.

During the last cultivating or so stirring deeply and widely somewhat checks the growth of the plants, and helps to hasten the fruit. In all other hoeing and cultivating, regard must be paid to the fact that the tomato is a great forager, rooting close beneath the surface, and occupying probably as much space as the tops would cover; therefore hoe lightly; little or no hilling should be done; bad results are likely to follow from an overdose of this kindness. I like to have the land in moderately good heart; and a change of land is beneficial.

EARLY CABBAGE.

Among the many good addresses delivered at the Horticultural Institute, one of the particular plums was the impromptu address on the above subject by Mr. Barton, of Weston. As this gentleman almost monopolizes the trade in Toronto for extra early cabbage, even to the exclusion of those foreign grown, his remarks, which were bright and racy, were listened to with rapt attention. The following is the substance of the speech:

One of the first necessities for early cabbage is suitable soil. No use trying to grow them on sandy soil, no matter how rich. The soil required is black loam, well underdrained, so that stagnant water will not remain. Use plenty of barn-yard manure; as to the quantity, well, put on all you can, and then add a little more. I can never get all that I want for my land. Use abundance of ashes. Never leave the manure in heaps about the field, as it is under these places that the insects lay their eggs, or remain in their pupa state till they are hatched, when they begin to be troublesome. So much for soil. Now for seed.

I sow under glass in boxes, having good drainage. First Henderson's Premier, next Early Jersey Wakefield, and then Henderson's Summer Cabbage. The first lot are sown early in February; a few days elapse between the sowings. The earth is well watered, the seed put on, and covered lightly with dry soil. In four or five days the plants will begin to show. Keep them dry, and in a couple of weeks they will be ready to transplant into boxes, which hold 150 plants; they are yet in the seed leaf. In three weeks change into boxes of the same size, but putting only fifty plants in each box. After another couple of weeks they will be strong

and in the rough leaf. Keep them still dry. There is more danger from damping off than from dryness. The boxes are now removed to the frames to harden the plants. Keep covered at night at first, till gradually accustomed to cold. When the plants have lost that bright green appearance, similar to Paris green, and their stems have become bronzed, if there are no signs of frost, leave off the covers at night. I like a couple of strong windy days and a cold night or two for hardening.

The last week in April, or first week in May, set out in the field. The plants will be able to stand a lot of freezing now without taking hurt. About the second or third week in June, they will begin to flag, and little insects attack them. Now then water, water, I say. What, carry water for 20,000 plants, we have no well, or creek! I hear some of my hearers say. Well, my friends, did you ever notice that, upon the hottest days, if you take a glass to the pump to get a drink of cold water, the outside of the glass will be covered with moisture, like dew. I want you to water your cabbage on a plan something similar to that. When the atmosphere is apparently the driest, it is then charged with most moisture; and by cultivating the soil, continually keeping it stirred, you attract that dampness, and the plants and soil around them drink in that moisture. The earth is also by capillary action continually drawing moisture from the water level, which is taken off into the atmosphere. By cultivating the soil, it breaks off these tubes, and the earth retains the moisture, so you water your plants above and below, by cultivating the soil.

After the crop is harvested, have the stalks pulled and removed. They can be put on the manure heap for tomatoes, but must not be mixed with manure intended for cabbages. Don't plant cabbage on the same ground two years in succession, as the butterflies will lay their eggs in the fences and surroundings, and the young will hatch out early, and be ready for their prey. I don't use artificial manures outside, as they are too expensive, but sometimes use a little indoors.

CELERY.

Celery as an article of diet is coming more into favour, and is frequently to be seen during the winter months, at meal times, in the farmer's home. It is not nearly as much used, however, as its many good qualities deserve. As a health factor there are few vegetables to equal it—acting directly upon the kidneys, and, by keeping those organs in good working order, it frequently wards off attacks of many diseases, the foremost of which is rheumatism.

Many farmers consider it a luxury, and the trouble of growing it too great. This is a fallacy we wish to dispel. Celery requires little, if any, more attention than other vegetables. Being a succulent plant, it of course likes plenty of moisture. This can be given by good cultivation and drainage. If the seed is sown early and transplanted into boxes to harden, the plants will be strong and thrifty before the time for planting in the open ground has arrived. They will then grow vigor-

ously, and attain considerable size before the hot, dry spells set in.

A trench about a foot in depth should be made, and about half-filled with fully-rotted manure; then cover with three inches of rich earth; on this set out the plants, which by this time should be about eight inches high.



CRAWFORD'S HALF DWARF CELERY.

Set about four inches apart, selecting a moist day for the operation, and there need be little fear of the plants not going ahead. Should the weather prove hot, the trench can be shaded during the hottest part of the day by old boards, etc. The roots will soon begin to strike



HENDERSON'S WHITE PLUME.

down in search of the moisture contained in the rotten manure. Earthing up with the hoe can be done as soon as the plants are sufficiently large, holding the stalks together to prevent soil getting into the hearts of the plants, and checking the growth. Never earth up during wet weather. Twice during the summer draw a little earth around them, and then in the

autumn give a good earthing up, to complete blanching.

There are many varieties of this excellent vegetable, but Crawford's Half Dwarf or Henderson's White Plume will fill the bill about as well as any. The latter is in a great measure self-blanching. It is a very handsome plant, and is a pleasant ornament on the dinner table. It is also of excellent flavour. The Crawford is a new extra fine variety, of a rich, nutty colour and flavour, a vigorous grower, and, for size, is between the dwarf and the larger sorts.

HORSES AND CATTLE.

CLYDESDALE ASSOCIATION OF CANADA.

The annual meeting of the above association was held at the Albion Hotel on Thursday, December 30, 1886, the president, Mr. McCrae, in the chair. The following members were present:—Messrs. Smith, vice-president, Moore, Jackson, Rennie, Doherty, Snell, Carstairs, Stanford, Beith, Ormsby, Duff, Taylor, Geddis, McDermott, Hurd, Annan, Scott, Ferguson, Mair, W. L. Taylor, Brandon, and H. Wade, secretary.

The minutes of last meeting being read and adopted, the secretary read the Constitution, which, after some discussion, was adopted in the form which is printed in volume i. of Herd Book.

The president then addressed the meeting, and spoke of the great number of good animals imported by Canadians this year, and hoped the quality of new importations would be as good. He was very sorry some of them were afterward sold to buyers from the United States. He also deplored the importation of horses with unregistered pedigrees, as it was generally found impossible to trace them when owners wished to have them recorded in the Canadian book. It was the rule of the association to accept only such animals for registration as were already on record in Scotch Herd Book, or were certified to be eligible by the secretary. He had been highly complimented while in Chicago recently on the good appearance and excellence of the first volume. It was a book of great value to the breeder, and he hoped any errors found in the book would be promptly communicated to the secretary, Mr. Wade, in order that they might be corrected in the forthcoming volume of the Stud Book. It was the intention to continue the appendix containing the pedigree of all crosses appearing in the pedigrees of imported animals; this had met with considerable favour, as breeders did not need to consult the Scotch Stud Book to trace the pedigrees of their importations. He hoped something would be done to relieve the great inconvenience and loss sustained by delays in transporting valuable stock.

At the meeting in Guelph last September the subject of holding a Spring Stallion Show was broached, and it remained for this meeting to come to some definite conclusion about it. It had been discussed already at the directors' meeting in the morning, and Toronto was thought to be the best place for the show.

The death during the year of two officers of the association, Robert Jeffrey, of Whitby, and Henry Parks, of London, was next feelingly spoken of. The secretary has been instructed to place on record the feeling of deep grief felt by the members at their loss.

The report of the secretary-treasurer was next read, which showed the receipts for the year to have been \$848, and the expenditure \$248, thus leaving a balance of \$100 to the credit of the association. As the association had no present use for this money, it was decided to collect no annual fees from the old members for the year 1887, unless it should be found necessary

to raise more funds, when a small assessment would be found sufficient.

A letter from Mr. Mills, secretary of American Clydesdale Association, was read by the secretary, offering on behalf of his association, two medals of suitable design for the best record stallion and mare bred in Ontario, to be competed for at the Provincial Fair of 1887.

After a lengthy discussion, in which nearly every man present took part, it was decided to hold a Spring Stallion Show, after the model of the Glasgow Fair, some time next March before the 15th, in the city of Toronto.

The following officers for 1887 were elected:—David McCrae, Guelph, president; Wm. Smith, Columbus, vice-president for Ontario; Hon. J. H. Pope, Compton, Que., vice-president for Quebec; Robt. Ness, Howick, Que.; R. Conroy, Alymer, Que.; John E. Smith, Brandon, vice-president for Manitoba; Prof. Lawson, Halifax, N. S., vice-president for Nova Scotia; A. C. Bell, New Glasgow, N. S.; J. E. Fairweather, Hamilton, N. B., vice-president for New Brunswick; Donald Ferguson, Charlottetown, P.E.I., vice-president for Prince Edward Island; and the following directors:—Robt. Graham, Claremont; Jas. Beith, Bowmanville; Wm. Reunie, Toronto; H. E. Hurd, Hamilton; John Jackson, Grahamsville; Robt. Taylor, Harwich; John McMillan, Constance. Messrs. W. L. Taylor and J. C. Snell were elected auditors. The meeting then adjourned.

H. WADE, *Sec.-Treas.*

SHORTHORN MEETING.

The following members were present at the meeting of the Executive Committee of the Dominion Shorthorn Association on January 7: Messrs. Dryden, Snell, Fothergill, Gordon, Davidson, Green, Shipley, Linton, Shaw, Russell, Patterson, Cowan, Johnston and Rae. The meeting had been called particularly to meet a committee composed of Messrs. Laidlaw, McQueen, Pettit and Donaldson, appointed at a meeting held in Guelph last December for the purpose of requesting the association to allow its standard so as to admit pedigrees that traced to animals already recorded in British American Herd Book that were not known to be false or spurious.

The members of the committees were then heard on the matter, but there was a great lack of unanimity of opinion among them, so they were unable to make any very great impressions, some wanting the change for one reason, some for another.

It was then explained that the resolution passed in Guelph was powerless, as it would be unconstitutional to change the standard without proper notice. The association, wishing to act fairly by all parties, advised the following notice of motion, which, after some hesitation, Mr. McQueen signed on behalf of the others.

To Henry Wade, Sec.:

I hereby give notice that at the next general annual meeting of the Dominion Shorthorn Association, it is my intention to introduce a resolution having for its object a re-consideration of the present standard for registration of the association.

(Signed.) ROBERT McQUEEN.

BREEDING PURE-BRED ANIMALS.

BY WILLIAM LINTON, AURORA, ONT.

It is understood that Mr. Bakewell was the first improver of our domestic animals; his greatest achievements were with Leicester sheep, and, although he endeavoured to improve what were called the long-horned cattle of his day, the attempt resulted in almost total failure in that direction, while his efforts with the cart-horse were somewhat more successful, and sheep-breeding he made a grand success.

The question now arises: How did he do this? Did he run all over the country, picking up a sheep here and another there, mating them together and trying to improve them by crossing? Not by any means. He selected the best of his own flock, and continued to select the best, until they were all related one to each other, all of one family type, and almost the same blood relationship one to another, so that when the rams were used in other flocks they stamped their own characteristics upon their offspring with such a degree of certainty as they could not have done had they been bred in any other manner. Some readers will exclaim, "Oh, there, he is an advocate of in-and-in breeding!" Emphatically, I am, to a certain extent, and will quote Mr. Wood of Castle Grove, in reference to the breeding of Shorthorns, the result of many years' experience, suggested to me at present by some facts which have recently come under my notice. It must have been frequently observed that animals sold at shows and Shorthorn sales, though good in themselves, and, it may be, descended by several crosses from purely-bred and perhaps well-formed Shorthorns, rarely in their progeny meet the expectations of their purchasers. What is the reason of this, and why are the hopes of those persons so often disappointed? If you look into the Herd Book and examine the pedigrees of these animals, I think you will almost invariably find in them recent *new* crosses, that is, recent crosses of animals of different families not related in blood. The progeny of such crosses, when good, I can never consider otherwise than as good only by accident; for, however excellent the parents themselves may have been, I believe that the chance of their producing good animals was in proportion, not so much to their own apparent excellence, nor even to the number and qualities of their ancestors of different families, as to the number of recent good crosses they may have had of the same blood or family. It is this continued relationship in blood which gives character to a stock, and fixes its qualities, either good or bad, according to the skill and perseverance of the breeder. It would seem as if every ancestor, or cross, introduced more or less new elements, and that every new element multiplied immensely the possible number of new combinations in the progeny.

Where many of the elements introduced by a cross are similar to those already possessed by the cow or herd, as the case may be, the chance of producing animals resembling the parent is greatly increased, and character and uniformity in the herd is obtained or ap-

proached; but where many of those new elements introduced by a cross are dissimilar to those already obtained in the herd, the number of possible new combinations is increased, and, of course, the chance proportionately increased of producing animals unlike their progenitors, and unlike each other. Greater variety and uncertainty is the result. Hence in herds so bred there is little uniformity of type. We sometimes see in them a good animal, very often a bad one, and we frequently see own brothers and own sisters with little or no resemblance. The principle thus enunciated, if carried to an extreme, would lead to the conclusion that the closer the affinity of the animals bred from, the greater the probability of good produce, provided those put together were themselves good, so that when own brothers and sisters are both good they ought to be put together, and if their produce proved good, they also ought to be put together, and so on.

Now, the mistake in the above deduction would seem to me to be in the *so on*, or in carrying the argument to extremes. In fact, the practice of breeding from animals allied in blood has been followed by the Messrs. Colling and other eminent breeders, with results so satisfactory that it would seem, if not carried to an extreme, to be the best, as it certainly seems the natural course in breeding.

We know that gregarious animals in a state of nature are very jealous of admitting strangers into their flocks, so that the animals of each flock must be connected in blood, probably by many different degrees of relationship. Most likely from this cause, as well as from similarity of habits and feeding, uniformity results, and these flocks have a fixed and steady type, which is not found to degenerate.

The famous Chillingham herd of wild cattle sprang from one cow and her own bull calf, a striking proof that animals may be bred from near relationships for many generations, without suffering any diminution of their hardiness or of their original good qualities.

The Messrs. Booth's herd has been bred for many years from animals whose relationships in blood are manifold. There is no animal in the herd that is not related to each of the others in many different ways; but the practice of breeding from the closest affinities (that is, from brother and sister, and from parent and offspring), has not been adopted as a general rule—never beyond what was considered the necessity of the case, or as a mere experiment.

If there be, then, any error in breeding in-and-in, as it is called, from good animals, and I confess that I think there is, it can only be in carrying the practice to an extreme, or continuing to breed from the closest affinities. The laws of nature have limits which cannot be passed with impunity. What is good in a certain quantity is not necessarily so in double that quantity. What is good in moderation is invariably bad in excess.

The practice of breeding from animals related in blood has, in the hands of the gentlemen before mentioned, produced the happiest results, but in less judicious hands it might, no doubt, be carried too far. Another question suggests itself. If it be true that

breeding from a good sire and dam does not necessarily ensure good progeny, can it be true that like begets like? My answer is that I believe the maxim to be true in a certain sense, but it undoubtedly is not true in the popular sense in which it is used, and I consider it has led many a young breeder astray, by inducing him to believe that when he had purchased a good-looking sire and dam he had secured all the necessary conditions for good progeny.

There is no more prevalent error among young breeders, and there can scarcely be a more fatal one. An animal has certain qualities apparent to the hand and eye; it also has hidden qualities, which neither the hand nor eye can detect, but which hidden or latent qualities descend to the offspring, and when the animal has been crossed with another animal of different blood, will produce new combinations, palpable and unexpected. The above maxim is true, then, in this sense, that though the offspring may appear unlike either parent, yet the peculiar properties of the parents are not lost in the offspring. They are inherited, but in combination may have produced effects which probably had not, and could not, with any degree of certainty, be foreseen. That these qualities are not lost would appear evident, as it is found that peculiarities of even remote ancestors will from time to time, more or less frequently, according to the skill and perseverance of the breeder, show themselves, or, to use a geological expression, crop out.

The before-mentioned eminent breeders, by long-continued and skilful selection, produced good animals, and by persistently using (with occasional exceptions) animals of the same blood or family obtained uniformity of type. The result is that a bad or indifferent animal is rarely, if ever, produced in their herds, that is, the chance of producing one is reduced to a minimum; and so fixed are those qualities that to whatever part of the world members of a particular herd are removed, whether to Canada, Australia, or the Continent of Europe, they invariably preserve their uniformly high character.

To guard against being understood to say that a cross of new blood ought never to be introduced into even old established and good herds, I must say that such crosses in such herds ought to be used rarely, and with great caution, and their use should be confined to a portion only of the herd till the full effect can be ascertained.

In commencing a herd or flock, we must determine what class of animals shall be used. In deciding this question, recollect that no farm was ever large enough, or a lot so contracted as to breed and raise successfully two breeds of any one class of animals. Let there be no division of effort on different breeds. And it is well to warn the inexperienced against purchasing stock off breeding-farms, where one man's knowledge of breeding, feeble at best, is divided and diluted by a variety, or even two kinds, of cattle or horses. A man who grasps at so much has but a limited idea of his own powers, or the full scope and compass of the meaning of being a fine-stock breeder. It takes a fine man to manage a fine herd properly—a steady and industrious man, with the organs of perception and reflection well developed, in his head—in reality an artist and physiologist, fond of his calling, and ardent in his desires to carry it to a successful and a happy issue.

JERSEY BREEDERS.

IMPORTANT SALE.

If three years ago any one had predicted that Canada would be known to the Jersey breeders of the world as having scored the highest position in breeding the pets of the Channel Islands, no one would have credited the statement. To-day the St. Lambert family of Jerseys are known to be unexcelled by any other, and yet this family was unknown to fame five years ago. But for Canadian breeders it would have had no existence, and had not the Canadian Jersey breeder abundance of faith, the St. Lambert family must have remained undeveloped, unknown and the Jersey interest one of no account. In a fortnight from now one of the best herds of St. Lambert Jerseys will be dispersed at an auction sale, at Eglington, near Toronto. Mr. A. Jeffrey is about to retire from breeding; having sold his farm, he will now sell his stock and implements. The catalogue of animals describes six Jersey cows, five Jersey heifers and two Jersey bulls, all registered in the American Jersey Cattle Club Herd Book; two unregistered cows, and two half-bred Jersey heifers. There are also some valuable imported Southdown sheep, ewe lambs, Clydesdale mares and fillies—one of the mares and two of the fillies are registered in the Clydesdale Stud Book of Canada—and registered Berkshire sows and young pigs from Snell's stock.

It is impossible to pass over the Jerseys without noticing their breeding, first among which appears "Brier Pogie," (A. J. C. O., 14,163) three years old. He is out of "Sweet Brier of St. Lambert," 5,480, a daughter of the grand old bull, "Lord Lisgar," 1,066. This fine cow gave over twenty-two pounds of butter in seven days. His sire was "Diana's Rioler," 10,481, out of "Diana of St. Lambert," 6,636, by "Sir George." He is richly bred in the predominant blood elements of the St. Lambert family, having of "Stoke Pogie," 25; "Pride of Windsor," 25; "Victor Hugo," 18½; "Pauline," 15½; "Laval," 12½; and "Lydie," 3½ per cent. There is a full sister to this bull, "Rioler's Sweet Brier," 30,582, a heifer of great beauty and promise. The great feature of the herd is "Sweet Brier's John Bull," 16,009, now eleven months old. This magnificent young creature was sired by "Canada's John Bull," the most inbred "Stoke Pogie" Jersey bull living, and is perhaps the best likeness of his sire. He is of solid colour, black tongue and switch, large, vigorous, perfect constitution, great depth of body, straight and level as can be, short legs, very fine head, and large prominent eyes; extra large, well-placed teats, very rich skin and altogether a most excellent individual. He is a show bull of great quality, and of sure promise as a stock-getter of value. He was the first prize bull calf at Toronto, 1886. His paternal granddam was a twenty-four pounds fourteen ounces cow, while his dam tested twenty-two pounds twelve ounces—average twenty-three pounds thirteen ounces. For excellence of individual character, there is no better pedigree to be found. "Sweet Brier's John Bull" has a history to make, and his record will be grand.

Of the unregistered cows it is impossible to speak too highly. "Countess" scores 37½ per cent. of the blood of "Stoke Pogie," through sire and dam, and "May Day" is a good heifer, and a worthy daughter of her great granddam of the same name.

The owner has fixed the date of the sale for March 16, and anticipates a large attendance. The terms of sale will, no doubt, add to its interest and induce many to put in an appearance who had no thought of going. It is the first auction sale of registered Jerseys in Canada, and will be looked forward to with more than ordinary interest, as it affords an opportunity of securing some of the choicest blood of the St. Lambert family.

Applications for catalogues and further particulars will be furnished by Mr. A. Jeffrey, 130 Bloor Street West, Toronto. Eglington is two miles north of the North Toronto Station, and can be reached by Yonge Street cars.

ELGIN CREAMERIES ON HIGGIN'S EUREKA SALT.

Elgin Board of Trade, ELGIN, Ill.

We are using Higgin's Eureka Salt in our factories, and consider it without an equal in point of uniformity and purity, and believe it to be the best Salt for Butter, Cheese or family use.

Factories.

A. Nolting.....4
C. M. Gorham.....1
Thos. Bishop.....1
J. H. Gage.....1
Thomas Webb.....1
L. C. Ward.....1
H. H. Boemer.....1

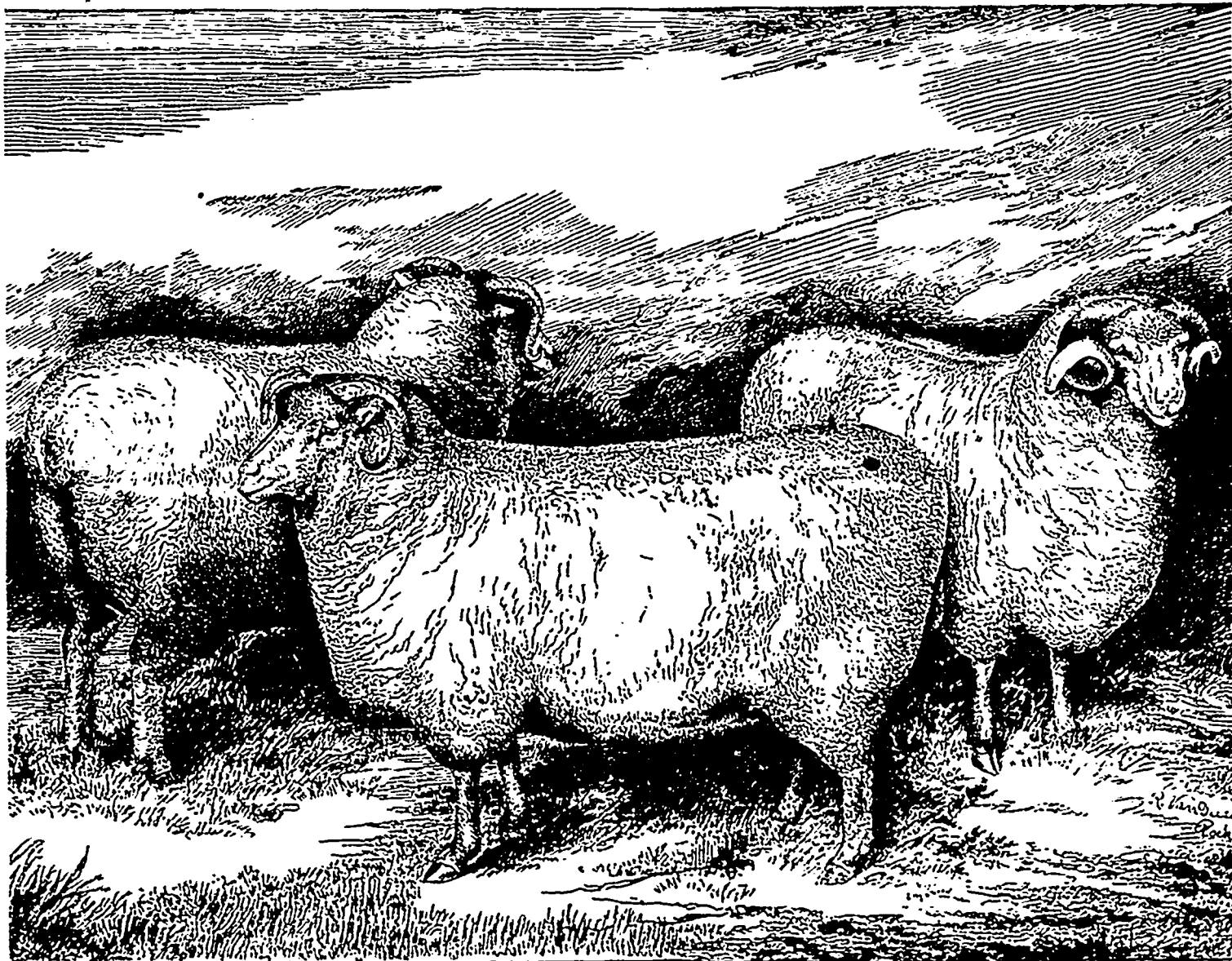
Factories.

Gould & Kilbourne....6
A. H. Boehmer.....2
McDonnel & Seyton....1
M. M. O'Brien.....1
H. Dickman.....1
Baldwin & Chisholm...1
Robert McAdam, Jr....3

SHEEP AND SWINE.*SWILL—HOW TO USE.***DORSET HORNED SHEEP.**

Drawn from life by actual and correct measurement and without exaggeration. They are in each case perfect likenesses, showing good qualities as also defects. They lamb twice a year (if so desired), and after first lambing produce twins in nine cases out of ten. Eight ewes at Oaklands, besides lambing in spring of 1896, had sixteen lambs the fall of 1886, and three yearling ewes had each one lamb. At Christmas they weighed at from five to seven weeks old, from thirty-five to fifty

There is no better food for young pigs after weaning than good skimmed milk with a little sweet, moderately fine wheat bran and corn meal stirred into it. There should not be a large proportion of meal in the mixture at first, nor so long as the pig is making growth, though corn meal is excellent to finish off fattening with. Many young pigs have been spoiled by overfeeding with corn or corn meal. It is impossible to get a good growth on such food alone. Clear milk would be better, but milk will pay a larger profit when given in connection with



1st Prize Yearling Ewe, Toronto Exhibition, Provincial Exhibition and Dominion Exhibition, 1886. Weight at 22 months old, 221 lbs.

Ewe, 3 years old.
Weight 208 lbs.

1st Prize Ram, Toronto Exhibition, Provincial and Dominion Exhibitions, 1886.
Weight at 10 months old, 180 lbs.

pounds each. We need only add that the sheep are the property of Mr. Valancey E. Fuller, Oaklands Farm, Hamilton. It is probable that Mr. Fuller may at an early date give our readers his experience of the Dorset Horned.

* MISTAKES will sometimes happen in the best regulated office. An article in our February number, "The Females to Buy," should have been credited to our excellent contemporary, the *Farmer's Review*.

some grain. Milk alone is rather too bulky for a sole diet: it distends the stomach too much, and gives the animal too much to do to get rid of the surplus water. Many young pigs are spoiled by overfeeding.

THERE are a few of our subscribers still in arrears. We invite all such to PAY UP. Those remitting at once for 1887 will be entitled to choice of book from list given in enclosed circular. Many of the books are worth a dollar each. Send on your money at once, and secure premium.

BEES AND HONEY.

OFFICERS OF ONTARIO BEEKEEPERS' ASSOCIATION FOR 1885-6.

OFFICE.	NAME.	POST OFFICE.
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THE ISSUE OF THE BEE LAW-SUIT.

Judgment has been given in the case of *McIntosh vs. Harrison*, to which reference was made in the January issue of *THE RURAL CANADIAN*, against the defendant. The full court has granted an interdict against keeping bees adjacent to the smithy. So far as Mr. Harrison's apiary is concerned, the decision is of little account, for since the commencement of the law-suit, nearly all his bees have been destroyed by fire. But the precedent which is thus established will doubtless be acted on, and so, far-reaching results are likely to follow. Until now it has been generally supposed that, in the absence of special legislation, bee-keepers could not be prevented from keeping bees within corporation limits. Mr. J. B. Hall, of Woodstock, took this ground when certain of his fellow-townsmen talked of getting a by-law passed to exclude his apiary from the precincts of the town. However, deeming discretion the better part of valour, he concluded to buy a piece of ground and build a residence outside of Woodstock boundaries, and to this new location he removed his bees a year ago last fall. In view of the recent decision, he doubtless congratulates himself on his practical wisdom and forethought, as well he may.

So far as we can see, there is nothing to prevent the municipal councils of incorporated villages, towns and cities from passing by-laws excluding apiaries from their limits. Unless the case is appealed and the decision reversed by a higher court, the way is quite open for action of this kind. Any one who has a neighbour keeping bees beside him can enter a complaint, apply for and obtain an injunction, as Mr. McIntosh has done. No appeal has been taken so far as we are aware, and unless a counter move is made in some way to quash the judgment, this decision will stand as the true and proper interpretation of Canadian law.

The *Canadian Bee Journal* of February 9, in commenting on the judgment, observes:—"We are indeed sorry to have to say that the case, *McIntosh vs. Harrison*, has been decided adversely to the interest of bee-keepers." We should express regret in a somewhat different manner, by saying we are sorry Harrison got into a squabble with his neighbour over a pig-sty, which resulted in this bee law-suit. But for the quarrel over the pig-sty, in all probability, the apiary would not have been molested. The bees appear to have been occasionally a source of annoyance, but if there had been a kind, neighbourly feeling, the thing would most likely have

ranked among the minor ills of life, and been, to say the least, tolerated. In our opinion apiaries have been kept in villages, towns and cities on sufferance. There has been a smouldering objection to them, which has now and then broken out into complaints like those poured into the ears of our friend, Hall, of Woodstock; but "good words" which it is proverbial, "are worth much, but cost little," have allayed outbreaks of dissatisfaction, and real or supposed grievances have slumbered. We have kept bees, off and on, within the corporation limits of Guelph, and in a somewhat central location ever since 1864, and beyond an occasional murmur from a groceryman or confectioner, and a complaint now and then from some lady who has been interviewed by the bees while she has been making preserves, and one instance of a neighbour's getting stung when poking his nose over the fence just in front of our little apiary, there has been no trouble. Last summer a swarm of bees from another bee-keeper's yard alighted on a lumber waggon in the very heart of the city on the main business street. It was quickly and safely hived, and "nobody hurt." But it is undeniable that there is constant liability to accidents, and one cannot wholly avoid a dread lest a serious case of stinging should some time occur. A bee-keeper can hardly feel "all serene" at certain seasons of the year when the bees may possibly "cut up," and be troublesome to near neighbours. In some rare instances bee-stings have proved serious and even fatal, and were anything of this kind to happen, a bee-keeper located in any centre of population would certainly wish his bees had been "further."

A good deal has been said in connection with this case about the rights of bee-keepers, but it must not be forgotten that the community also has rights. Without proof of any one having actually contracted disease through the proximity of a slaughter-house, the danger of such a thing occurring impels corporations to rule them outside the limits. In England, when a certain church bell, which rang at untimely hours, was complained of as a nuisance, it was doomed to silence. Individual rights must yield to the general good. Many examples might be given in which the application of this principle appears to be, and perhaps is, rather oppressive. But the motto adopted by the *Canadian Bee Journal*, "the greatest possible good to the greatest possible number," must be acted on in all cases.

We are not sure that our contemporary is right in saying that this case "has been decided adversely to the interests of bee-keepers." That it will cause inconvenience and loss to some and possibly many bee-keepers, if carried to its legitimate issues, is probably correct. But whether it will, in the long run, injure bee-keeping as a business, remains to be seen. It will have the effect of driving many small bee-keepers either out of the business altogether, or inducing them to go into it more largely. Take our own case. An apiary of from a dozen to twenty stocks is a practicable enough affair to manage in addition to some other line of employment, but to move it out of town, and through the swarming season, watch it every day and, all day

long, would be rather unprofitable. We have a lovely spot for an apiary on the farm two miles out of the city, but to maintain an apiary there it must be a larger one in order to pay. So the question is whether to sell out and abandon bee-keeping, or take to the country and go into the business more extensively? If we should go into apiculture on a large scale, and make money at it like our friends Jones, Hall and others, it might in the end prove a fortunate thing for us that this decision was arrived at in the Harrison case. This is doubtless how the matter stands with many more. Some will retreat, while others will wade in more deeply, and it is to be hoped, win success.

That one result will be to lessen the number of amateurs, and increase the number of specialists, can hardly be doubted. There are many experienced and thorough bee-keepers who think this business ought to be wholly conducted by specialists. If they are right in their views, then this judicial decision will not in the end be detrimental to the interests of bee-keeping. We must "hope for the best, and prepare for the worst."

THE FUTURE OF BEE-KEEPING IN THIS COUNTRY.

It requires no prophet's ken to foretell a large expansion for the business of honey-producing in Canada. Despite the severity of our winter climate, we have a country unsurpassed for keeping bees. Like ancient Canaan, it is "a land flowing with milk and honey." The very vigour of our winters has an occult influence in developing the nectar secretions of flowers. It has not been scientifically explained how it is, but the fact is demonstrated that no part of the world excels this as a field for practical apiculture.

Thus far, our own people have not been large consumers of honey. The main reason for this has been that it was a too costly luxury. But the price has now become so low as to bring this delicacy within the reach of the population generally. With a cheapening of the product has come also increased facility of production. If it costs less to buy a pound of honey now than it did some years ago, it also costs less to produce it. The average yield is greater. We have learned how to get more work out of "the little busy bee" than in the days of yore. We can compel the occupants of the hive to store honey when it is to be had in the fields for the gathering. We are not like the bee-keepers of the past, fain to hope and pray that our bees may store a surplus. We understand their instincts better, and can so fix things as to persuade them to work with a will when there is anything to do. And, with improved methods of management, our labour is lessened, so that we can care for two hives with no more trouble than one used to cost us. It needs therefore only sagacity and energy in selling honey to secure for it a much more general consumption.

As a happy result of the liberality of our Provincial Government, and the excellent management of our commissioners who took charge of the Canadian display of honey at the Colonial and Indian Exhibition

last summer, there is every reason to believe that there is now a market in Britain for all our surplus product at fairly remunerative prices. Our honey has acquired the same *status* in the Old World as our meat and cheese, and we may reasonably expect a large and increasing demand for all we have to export.

The question arises in this juncture of affairs, Is bee-keeping a money-making business at the present rates for honey? The answer must be that it is not, in the sense that one can expect to get rich at it in a very short space of time. But it is a branch of industry at which people who understand their business can make a decent living, and save somewhat, according to their skill, energy and luck. It is on a par with the average of honest callings. We go farther, and assert that there is no legitimate business at which, if thoroughly understood and well managed, a small amount of capital will bring a better return. Bee-keeping can be commenced with a comparatively small outlay, and the beginner who is competent for the task he has undertaken, and is willing to "make haste slowly," can hardly fail to succeed.

The curse of bee-keeping is that so many who go into it absurdly imagine that they can make a grand success of it, in total ignorance of bee-management. Possessed with the idea that all they have to do is to get a lot of bees, and then leave them to "their-own sweet will," they court failure, and win what they woo. There are not only numerous examples of this in a small way, but not a few instances of persons who have gone into bee-keeping extensively in total ignorance of the business, only to lose their time and money. We could name parties who have sunk from \$1,000 to \$2,000 in this way, and who have only themselves to blame for supposing that they could make money at a calling they knew nothing at all about. Bee-keeping is not peculiar in this. Lots of people have gone into store-keeping, milling and other callings, and, "going it blind," have fallen into the ditch of poverty and loss.

It is not every one who is fit to be a bee-keeper. A rare combination of natural qualifications is required to begin with. No amount of training and experience would make certain people successful merchants. The same is true of many in regard to bee-keeping. Natural aptitude and then acquired skill are necessary in every line of human activity. Bee-keeping only conforms to the general law which rules every field of industry in which man toils for a livelihood.

A person who proposes going into bee-keeping on a small scale may begin by studying a bee book, subscribing for a first-class bee journal, and buying a hive or two of bees. Even then, experience will probably be bought at the cost of some disappointments and failures, and success will come slowly. But if one proposes to go into bee-keeping as a business, the best way is to become "a'prentice hand" with some good, practical bee-keeper for a season or two before starting an apiary of one's own.

SUBSCRIBERS, ask your neighbours and friends to take THE RURAL CANADIAN. Send us their names on postal card, and sample copies shall be forwarded free.

THE DAIRYMAN.

THE two years and a half of life maintained by THE DAIRYMAN have not been such as to encourage its continued existence as an independent journal. The difficulty of renewing old subscriptions, and of obtaining new ones in the face of the competition of rivals who cultivate the entire field of agriculture, rather than a special department only, has determined its withdrawal from the list of Canadian monthlies. Hereafter it will appear only as a department of THE RURAL CANADIAN. The subscribers who have favoured it with their support will continue to receive their full share of treatment in dairy matters. The policy of the department will be in all respects the same as that of THE DAIRYMAN. Daily records, the systematic use of weights and measures for all purposes, the encouragement of improved breeding for dairying, will be kept steadily in view; while the higher development of farming in all branches which promote increased production, and economy of method, will receive constant attention.

To the advertising friends of the old journal, my warmest thanks are tendered for past favours. The increased circulation of the combined papers will be of advantage to those who have uncompleted contracts: and to those who favour me with renewals, the best terms will be given. For the future I bespeak the kindness and consideration of old friends, and promise, as far as space will permit, the same generous treatment of subjects which has always characterized the old paper.

JAMES CHEESEMAN.

LITTLE remains to be added to what Mr. Cheeseman has written. The conductors of THE RURAL CANADIAN will strive to make this important department of the paper increasingly useful to its readers; and under Mr. Cheeseman's supervision we have no doubt THE DAIRYMAN will win for itself a wider circle of readers than ever before. Correspondence invited from practical men on subjects of current interest to dairymen.

SHORTHORNS FOR MILK.

There is an erroneous impression in this country that the Durhams are good only for making beef, and that their milking qualities are inferior. Nothing could be wider from the mark. The largest dairying society in old London last fall offered substantial prizes for the best herd of milch cows, irrespective of breed. The Shorthorns were the winners, far ahead of the reputed milking breeds. The county of Cheshire is the dairy county of England, noted the world over for its cheese product. The cows kept in that locality are either Durhams or their grades. The latter have so many crosses of pure blood in their veins that they would pass anywhere as pure-bred Shorthorns. How did this come about? Simply by breeding from females of good milking strains, not allowing them to suckle their calves. The same results can be achieved in this country by pursuing the same policy. It cannot be expected that animals will develop great milking capacity when they do nothing but raise their calves. They just make suffi-

cient milk for the purpose, but not a drop over the quantity. This has gone on, one generation after another; and now the majority of Shorthorn cows in Canada, instead of converting their food into milk, put it on their own backs in the shape of flesh. Last year we saw a remarkably good, pure-bred Shorthorn cow with an udder as large as a Holstein's. This cow filled a ten quart pail thrice daily when the grass was at its best. Like begets like. What is there to prevent this cow's progeny being first-class milkers, if used for that purpose instead of being kept to raise calves only? Pure-bred Durhams in Canada are of considerable value, realizing high prices; and as the demand is great it is only to be expected that breeders will try to keep their young stock growing, by keeping them on the dam. The prices realized pay better than can be made from producing milk. As the Shorthorns get commoner, that is when they become the farmer's cow, and there can be but little doubt they will before many years pass away, we shall then see the milking qualities of the Durhams developed here as they have done in the Old Country.

WATERY FOODS, NOT PURE WATER, AFFECT THE QUALITY OF MILK.

The following extracts show the results of investigations by Dr. Augustus Voelcker, an English chemist, on this subject:

The direct supply of water to milch cows, according to my experience, does not affect the quality of the milk, at least, not to a very appreciable extent. You cannot, in other words, water the milk by giving the cows much water to drink. The case is different if washy or very succulent food—which is always very watery, often immature, and at the best poor or in nutritious—is given to cows. In my judgment it is the poverty of the food, rather than the excess of water, which causes cows fed upon such food to give watery milk. Again: If such food as brewers' grains, or silage, which is naturally sour, or barley, or oatmeal, is mixed with water, and kept until the wash gets sour, such acid foods or wash greatly promote the flow of milk, and unless supplemented with concentrated food, have the effect of producing much, but watery milk. All the constituents—fat, caseine, milk, sugar and ash—vary in cows' milk according to the breed of the cows, age, time elapsed since calving, and especially the quality of the food on which they are fed. The greatest variation occurs in the percentage of butter-fat. I have had milk sent to me for analysis which yielded twice, and even three times, as much butter-fat as other samples of an unquestionably unskimmed, unadulterated milk. The proportions of solids not fat vary much less. Milk, and to the same extent also the relative proportions of caseine and milk sugar, vary in different samples of milk, but not in any great degree. As a rule, a milk which yields a high percentage of solids not fat also yields much fat. I have never found as little as 2.2 or 2.4 only in fat milk containing 6.2 per cent. of solids not fat. If milk gives 8.7 of solids not fat, and only 2.4 per cent. of fat, in my opinion it is skimmed, but may be otherwise pure and

not watered. As a matter of fact, the bulk of London milk has more or less the cream taken off, especially in the strawberry season; and in my opinion the minimum standard of public analysts—namely, 2 1-2 per cent. of fat and 8 1-2 solids not fat—might with propriety and with benefit be altered to 3 per cent. of fat and 8 per cent. of solids not fat. According to my experience, genuine milk of fair quality, and by no means extra rich quality, such as is produced from well-fed Alderneys, seldom contains less than 3 per cent., and much more generally 3 1-2 to 3 3-4 per cent. of fat throughout the greater part of the year. My opinion is that a large proportion of milk sold in London and elsewhere, and passing the public analysts' ordeal, is more or less skimmed.

BUTTER FACTORIES

Are carried on in Ireland under three distinct systems. Those of the first class, for which milk is furnished from the farmers to be made into butter, are called milk factories; those to which the farmers send cream, retaining the skimmed or separated milk, are known as creameries; and those of the third class, which finish off butter churned by farmers separately, are termed butter factories, for the sake of distinction, though all are in reality butter factories. The creamery system is preferred for various reasons, the chief of which are that the skimmed milk is more valuable on the farm for pigs and calves than for sale from a factory, and that while milk has to be sent to the factory twice daily, cream needs only to be sent every second day, and as to the comparison of creameries with butter factories of the third class, the former are preferred, because it is easier to make good butter by doing the churning as well as the finishing than by doing the latter only. Under the creamery system, as it prevails in three large creameries in Ireland, every farmer's cream is churned separately, and he is paid in accordance with the quantity and quality of the butter produced; while the person who brings the cream takes away the buttermilk. Thus each farmer gets fair value for his produce, an adjustment not nearly so easy where milk is sent in instead of cream.—*Dairy World*.

ADVERTISERS are asked to note our purchase of THE DAIRYMAN, and the addition of its subscription list to the already large list of THE RURAL CANADIAN. This makes the third paper absorbed by THE RURAL CANADIAN. Readers, as well as advertisers, will this year get better value for their money than ever before.

HOW A YANKEE WOMAN MAKES GOOD BUTTER.

We find the following in one of our exchanges: The only way to test the keeping qualities of sweet and sour cream butter is to make both kinds in the same place and under the same conditions. This would not be a perfect test, as the changes of atmosphere would make a difference from one week to another. One thing you

must remember, though, if you expect to make good butter; it can't be done out of poor cream; and another thing, everything must be done just at the right time, and neatly. Keep the creamery and milk away from the kitchen and the pantry. Let it be in a room with nothing else in it, where the light and heat can be regulated. The north side of the house is best. A room with the sun blazing into it would not be good. There should be wire screens over the doors and windows to keep the flies out. The cooler the room the better, so there need be no mistake about this. I think when the cream is raised in a tight creamery it needs to be stirred often, for I believe in fresh, pure air everywhere, and I am sure it helps the cream to mature, so as to make better butter. I do not like to have a coat on top and a lot of whey in the bottom of the jar. It never should be left long enough to get in this condition. It does seem to me that such kind of cream cannot make good keeping butter, and that the best way is to skim the cream and churn it before any such work of frowsiness or putrefaction begins. Salt will not destroy the germs of putrefaction, but it will arrest or check their action; but in the end they will show themselves, and the butter will keep longer if the germs of decay are not developed before the butter is made. The salting is then more preservative, because it does not have the active elements of frowsiness already developed, and there must be time and circumstances to start them. So I say the sweeter and fresher the better, only have it well stirred and aired.

WE send out accounts to all our subscribers who have not already remitted, and invite prompt payment. When sending your money for 1887, name your choice of book from list given in circular.

THE *American Dairyman* says: Let a drop of fresh milk fall into a glass of pure water. If the milk promptly disseminates itself through the water, the cow that yielded that milk is not with calf, but if it sinks to the bottom of the glass as it falls upon the water, and does not produce much of a milky cloud, the cow is pregnant. The specific gravity and viscosity of the albuminous milk, being heavier than water, thus retains the drop of milk and causes it to sink.

CONSIDERING the fact that even a large part of even the best milk is water, and that drunk by the cow, the necessity for giving cows in milk only the best water will be fully understood. So far from the cow absorbing any offensive substance so as to leave the milk pure, the very reverse is the case. The female giving milk is usually healthy, for the reason that whatever impurities exist in the system are carried off in this direction. As soon as a cow is in any way out of condition her milk is unfit to be used.

A FEW subscribers who clabbed with other papers in 1885 seem inclined to dispute our right to payment for 1886. They took the paper for that year, and should pay for it. Their responsibility is beyond doubt.

THE GRANGE RECORD.

FOR THE RURAL CANADIAN.

FARM THE MIND.

Since winter is solidly spread over our Province, the hurry of outdoor work done, and more leisure to attend to thought and study is afforded, it becomes the duty of every farmer to read, compare notes and try to find out where he made a mistake, or how he could have bettered his results. This he may be able to do in one or two particulars without outside assistance, further than what he has learned from his agricultural paper, which may have contained some other body's experience on that particular point. He may make up his mind to try a different plan next season, as suggested by his friend, through the paper. This is a very praiseworthy determination, but there is one little deficiency that is liable to come up—the soil on his farm may be quite different from that where the success was accomplished; perhaps the plan to be copied was on a thoroughly drained soil, and even of a widely different subsoil; all of these would help to make a change in the circumstances, and a corresponding difference in results. If he could have a neighbourly chat with his friend for half an hour, all these could be satisfactorily explained, and more certainty laid under the foundation of next year's operations. How is this knowledge to be gained? By attending the Farmers' Institutes in his own or neighbouring counties, where farmers are prepared to give their experience for the general good, and where a few questions will bring out all the conditions and surrounding circumstances, which may account for failures or successes in the cases under discussion. There is no better means of getting valuable information than by having the operations explained by those who have performed them for themselves, where the wisest and most experienced will learn many things that they would not otherwise find out.

There may be some farmers who pride themselves on a perfect knowledge of the theory and practice of tillage, and vainly imagine that they do not need instruction. Vain conceit! No, brother farmer, you are not sufficiently instructed. Our most profound philosophers, after a whole life of careful study and observation, backed by the study and experience of the ablest minds for generations past, are afraid to give a certain opinion on many of the natural laws that govern our every-day work on the farm. Ask one of those eminent masters of natural science to tell you how some of the most active laws in the growth of plants and animals operate, and he will tell you that such or such may be the case, but that he would not dare say so, for fear that he might be wrong. The science of farming—for science it is which must be followed in our most ordinary work—is profoundly grand; so much so that many of the most cultivated minds are at present studying and experimenting to find out with certainty what are its laws and how they are applied in changing dead matter into living tissues; and though we may, by custom or chance, happen to succeed in some particular undertaking, we are

only playing a game of blind-man's buff until we know the *why* of the result; when we know the *how* we may claim to be instructed. As we are, we must be guided by results carefully obtained by ourselves and others, gleaned from those who have experimented under different conditions, by which we may be able to find out the successful and unsuccessful conditions, and thereby save years of time and uncertainty, since scarcely two do the same work exactly alike, and some unobserved fact may account for much in the result. We must keep our eyes and ears open, read, think, work, teach and be willing to learn from others, and try to find out the cause by observing the effect, and having made a discovery, publish it for the benefit of others. Just such work can be accomplished by the Institutes that are now in session, and busily engaged in discussing the best plans of farming in its different branches, to suit the requirements of our Province, whose surroundings are so much changed by the opening up of our great North-West, and the greater meat and bread producing areas in both continents, that our former methods must change to enable us to maintain a living competence and meet our public expenses. We say, to old and young, attend the Institutes, and add your share to the general good, and receive your share of information. M. McQUADE.

Egmondville, February 12, 1887.

FOR THE RURAL CANADIAN.

THE SCRUB.

This is the key note of a class of our public speakers and writers in farm journals, who would lead their hearers and readers to believe that an animal that is not up to their ideal is a scrub. The man who is speculating in Clydesdale horses describes all else as scrubs; the man with an imported Durham calls all others scrubs; and a writer in the *Stock Journal* goes so far as to say that none have any merit. By your leave, gentlemen, not so fast. Permit us to take a look behind, and see where the merit is, and where the motive for these lectures lies, and we will not be surprised to find that the prime impulse lies low down in the private pockets of these philanthropists; that their bow has two strings to it, and that by pulling the one they tighten the other, and go on the broad principle of self first. We have a stock journal, a good, spicy, well got up paper, published in the interest of breeders who advertise in it, and whose proprietor uses his strongest pen to blow them, on the principle of by-gone days in a distant land, "I get the meal, and you get the milk." Canadian farmers generally care very little how high these gentleman puff their stock, provided they stop slandering their neighbours' cattle. Experience, past and present, of those who have had the Durhams side by side with some of our Canadian cattle will need more than has been yet been advanced to make them call some of our best families of Canadian cows by the name of "scrubs."

It is known to almost every one in our section that some of the high-pedigreed fancy Durhams of the Booth family are not able to raise their own calves; while a Canadian is called in to raise the young stranger, and

her own calf as well, which she generally does with credit to her ancestry, though only a "scrub." Prof. Brown some time ago gave abundant testimony to the superior merits of the Canadian cow for general purposes, and echoed the wish of many that this sterling old settler would soon find a friend to give her a pedigree and prestige worthy her true merits. Compare again the vitality and stamina of the Canadian and Durham. On one line you find Durhams and high grades, and may get one or two calves to five times as many cows; on the other, Canadians and low grades, with a calf for every cow—a quality worth something in a comparison.

CHARACTER.

Several generations are required to build up character, which, when properly developed, goes to form the standard. In the Channel Islands, out off from the Continent and England, the people and stock, remaining isolated for many generations, developed a character to suit the wants and conditions of the people, and supply the epicures of England with an article of butter to make them smack their lips. In appearance, the famous "Mary Anne of St. Lambert" must give place to her Canadian neighbours, and would therefore be more scrubby. Yet, Mr. Fuller can take as much money for his one cow as would buy a herd of Booths; and why? Not to make beef, but because of her character and butter production.

The Jerseys have a character so potent that it shows itself in every cross, and when mingled with some families of Canadians, though the points and party colour of the Jersey are visible, the Canadian gives the frame, constitution and general appearance, clearly showing that the oldest families of Canadians have a vitality and character well established. We know two distinct families of cows that have been for fifty years in Huron, one red, the other white, with red nose and ears, whose descendants can be traced for miles around; so firm is the character that these party colours are yet as entire as they were forty years ago. This class of cows do as good work—tested by pail and churn—as ever, notwithstanding the inroads of Ayrshire and Durham thoroughbreds. Even the red Booths are not able to change the colour or milking qualities. The only instance where a Canadian shared her property is where the cow had twins, one like herself and one like the Durham. Is it any wonder, then, that a Canadian should find his back hair getting stiff, and that he is almost tempted to call the Durhams dish cloths in retaliation? No, gentlemen, you shall not call these valued old settlers ill names without reason in my hearing. Your Shorthorns may be, and are, very good in their place, but that is not in the dairy, nor in the richest out of fine-grained beef. We will give you quantity, but not quality. The watery, vealy surfeited, premature beef from a Durham steer cannot be compared in texture and flavour with beef from a well-fed Canadian with fine bone and firm muscle; yet with their fine qualities, our distance from great meat markets and the present rules of transportation companies combine against the Canadian steer; hence the need for crossing with pure Durhams.

GRADES

make a great improvement in form for beefing, but, should matters in this respect go on as they have begun, how is our old standard to be preserved; for there will be a time in the future when the old blood will run out, and beef and bone take the place of milk and butter, unless half a dozen patriots at once combine to preserve the old Canadians in their purity? OLD SETTLER.

February 19, 1887.

THE DEPTH OF DRAINS.

Much has lately been written in regard to the depth to which drains ought to be dug in a system of thorough drainage. It is difficult, perhaps impossible, to establish any empirical or general rule upon this subject; but there are certain indisputable points which will serve to guide the intelligent farmer in most cases which are likely to occur.

1. It is acknowledged, as a general rule, to be of great importance that the soil should be deepened—that it should be opened up, for the descent of the roots, to the greatest depth to which it can be economically done. The tile—or the top of the drain, if made of stones—should be at least twenty inches clear of this disturbance of the upper soil; and as most tiles will occupy at least three inches, we reach forty inches as the minimum depth of a tile drain, and about three feet as the minimum depth of a stone drain, in which the layer of stones has a depth of not more than nine inches.

2. Where the outfall is bad, and a depth of thirty-six inches cannot be obtained, the drains should be made as deep as they can be made to run and deliver water.

3. The roots of our corn and other crops will, in favourable circumstances, descend to a depth of four or five feet. They do so in quest of food, and the crop above ground is usually the more luxuriant the deeper the roots are enabled to penetrate. It is, therefore, theoretically desirable to dry the soil to a greater depth even than three feet, where it can be done without too great an outlay of money.

4. The question of economy, therefore, is one of great importance in this inquiry. In some places it costs as much to dig out the fourth or lowest foot as is paid for the upper three; and this additional cost is, in many localities, a valid reason for limiting the depth to thirty-six inches or three feet.

5. But the question of economy ought to be disregarded, and deeper drains dug where springs occur beneath, or where, by going a foot deeper, a bed or layer is reached in which much water is present. The reason of this is that, though water may not rise from this lower layer in such quantity as actually to run along the drains, yet it may do so in sufficient abundance to keep the subsoil moist and cold, and thus to retard the development of the crops that grow on its surface.

The above circumstances appear sufficient to guide the practical man in most cases that will present themselves to him. No uniform depth can be fixed upon; it must be modified by local circumstances.

HOME CIRCLE.

WHAT OF THAT.

Tired! well, and what of that?
 Didst fancy life was spent on beds of ease,
 Fluttering the rose-leaves scattered by the breeze?
 Come, rouse thee! work while it is called to-day,
 Coward, arise, go forth thy way!

Lonely! and what of that?
 Some must be lonely: 'tis not given to all
 To feel a heart responsive rise and fall—
 To blend another life into its own,
 Work may be done in loneliness; work on!

Dark! well, and what of that?
 Didst fondly dream the sun would never set?
 Dost fear to lose thy way? Take courage yet.
 Learn thou to walk by faith and not by sight,
 Thy steps will guided be, and guided right.

Hard! well, and what of that?
 Didst fancy life one summer holiday,
 With lessons, none to learn, and nought but play?
 Go, get thee to thy task. Conquer or die!
 It must be learned. Learn it, then, patiently.

No help! nay, 'tis not so;
 Though human help be far, thy God is nigh,
 Who feeds the ravens, hears His children cry.
 He's near thee wheresoe'er thy footsteps roam,
 And He will guide thee, light thee, help thee home.

THE QUEEN'S RECEPTION.

A "drawing room" is held by the Queen, or on rare occasions, by the Princess of Wales. It is intended only for ladies, and the announcement is made in the public prints that noblemen and gentlemen are not expected to present themselves unless in attendance on the ladies of their families. The names of those not previously presented must be sent in two clear days in advance, as well as the names of those who present them, and it does not follow as a matter of course that every name is accepted. Any known immorality in a woman is fatal, no matter what her rank. Dress, however, deters quite as many as character. The regulations are as rigid on one point as the other. The oldest dowager must bare her withered arms and neck before presenting herself in the august presence, or in order to appear with sufficient protection, a medical certificate is indispensable. Then the train must be three yards long, and the position of the feathers that must be worn is a matter of supreme importance. The Queen directs that the feathers shall be placed at the back of the head, but they must be high enough to be visible to her Majesty when the lady enters the room. Women of rank have been turned away for neglecting some of these rules. There is a long and tedious time to be endured by those whom loyalty takes to court. At both levée and drawing room the visitors must pass through different apartments, to which they are admitted in sections; ropes are drawn across these to prevent the aristocrats behind from pushing forward too eagerly, and the enclosures thus formed are properly enough called "pens." This device, however, does not prevent

great crowding and sometimes flagrant ill-breeding in the "highest society of Europe." The daughter of an earl told me she had often known ladies stick pins into the bare arms of those in front to make them move out of the way; and in the rush after the ropes are withdrawn, I have twice had my epaulettes torn from my shoulders. If this should occur to an Englishman at the White House, what lectures we should receive on the manners of a democracy!

The presence-chamber is arranged as for a levée only that the Queen, and not the Prince of Wales, is at the centre of the line; next are the ladies of her family, and then the Heir Apparent and his brothers, or any royal strangers. Her Majesty wears a black gown and a widow's cap. Over the cap is usually placed a small diamond crown, while the ribbon of the Garter and similar orders are on her breast, as well as the Koh-i-Noor and other jewels worthy of a Queen. The Princess of Wales and the other princesses are in full court-dress, petticoats, trains, feathers and all. Behind them stand their attendants, male and female, as the *Court Circular* sometimes disdainfully describes them.

When the diplomatic corps has made its reverences and taken its place, the English ladies follow, and as each enters the throne-room with her train over her arm, two gentlemen-in-waiting deftly seize this appendage, and spread it behind her till it hangs like a peacock's drooping tail. Then the lady, handing her card to a lord-in-waiting, passes up toward the Lord Chamberlain, and stands till he pronounces her name. Upon hearing it she prostrates herself in front of the Queen so that one knee nearly or quite touches the floor. If it is a presentation, her Majesty extends her hand with the back upward, and the neophyte, placing her own hand transversely under that of the sovereign, raises the royal extremity to her lips. When the lady is of the rank of an earl's daughter the Queen bends slightly forward to kiss the cheek of her subject, and the homage is complete; but there have been occasions when the novice was insufficiently instructed in advance, and kissed the monarch in return, very much to the disgust of Majesty and the horror-struck amazement of the courtiers. After the obeisance to the Queen, another must be made to every one in the royal circle in turn, the depth of the courtesy being graduated according to the rank of the personage; and as the last prostration is performed, and the subject rises to her natural position in life again, two other watchful lords, or gentlemen, as skilful as the first, catch up her train, and throw it once more over the lady's arm and she slowly stumbles backward out of the room, having been at court. It too her two hours, I suppose, to dress, and she sat in evening costume two hours more in line in her carriage before she entered the palace; then she was at least an hour in the "pens," and she was two minutes in the presence of Royalty. Now she must probably wait an hour or more for her carriage, but she has been at court. If she is young, she has practised her obeisance for days in advance, and the backward step as well, and is delighted that at last she is in the world.

LET THE BOYS HELP.

Why is it that boys are allowed to sit around a house doing nothing, while their overworked mother is struggling against nature and fate to do about half the work?

Only the other day we saw three large, able-bodied boys lounging about the house, not knowing what to do with themselves, while their mother, tired and pale, was trying to do the work for a large family and company alone. Not a boy's work to help about the house? Why not? Is there anything about washing dishes that will injure him, or which he cannot learn to do well, or about making beds, or sweeping, or setting the table, or washing or ironing, or cooking a plain meal of victuals? On the contrary, there is much to benefit him in such work, the most important of which is the idea that it isn't manly to let the "weaker vessel" carry all the burdens, when it is possible for strong young hands to help. Most boys would gladly help in the house if they were asked to do so, and were taught how to do the work properly. Many a smart boy wants to help his tired mother, but doesn't know how beyond bringing in the wood and water, and shovelling a path through the snow. This done, she tells him to go and play while she plods wearily on. Not a boy's work? For shame! It is a positive harm to a boy's moral character to allow him to think it right to be idle while his mother is staggering under her burdens. Let the boys help, and those who can't get help "for love or money," as they often write to us, will see the troubles disappear.

SOME FARMERS' WIVES.

The mistress of the farmhouse is often a greater drudge than the farmer. The routine of daily duty is more uniform and exacting; the confinement is more circumscribed, and naturally becomes more irksome. She is too often housekeeper, nurse, cook, governess, chambermaid, seamstress, dairy-woman, as well as the farmer's wife. Such a substitute for maid-of-all-work should be made of iron. The farmer is accustomed to hard work himself, though it is relieved by the ameliorations of pure air and free locomotion, and he fails to see the slavery to which his wife is doomed, because his mother was just such a slave. His ideas come by inheritance, and are fortified by personal experience. He might relieve her by relegating the dairy to the factory, by labour-saving appliances, by hiring more help, sometimes by doing a little of this domestic drudgery himself; but he doesn't think of it, and perhaps don't like to have one jog his memory. Under these toils and hardships, saying nothing of trials of disposition and tribulations of temper, is it a wonder that the farmer's wife is sometimes compelled to exchange her home of hardship for a hospital of mind diseased? These may be extreme cases, but they occur, and were it not for the wholesome influences of the country, would come to light with greater frequency. In view of such facts, which have excited much attention without exerting a sufficient influence, the need of respite from the strain of monotonous toil upon the farm must be apparent.

Some form of vacation, short though it must be, in summer is evidently necessary. Some temporary change, frequent, yet radical, of the tone and tenor of ordinary routine, is essential to the highest results of the work and the highest health and happiness of the worker.

HEALTH AND HOUSEHOLD HINTS.

CLEANLINESS is a *sine qua non* of beauty of complexion, though it does not play a great part in the health of the skin.

IN finding places for kitchen utensils study every time to place them where it will take the least walking to reach them.

A SILK, velvet or plush bag attached to a gilded palm leaf fan is a pretty receptacle for photographs, cards or a bit of fancy work.

THERE is no better plan for freeing rooms and cellars from mildew than to burn sulphur in them. The rooms should be effectually closed, and not opened for one hour after being filled with the sulphur fumes.

ALL sediment cocks in kitchen boilers should be left open at least once a week for the space of fifteen minutes, so as to clean and wash out all sediment. Oftentimes when complaint is made that the water smells, or that it don't heat properly, the real cause will be found to arise from this neglect alone.

POTATO pancakes, made of grated raw potato, are a light breakfast dish. Grate eight large potatoes, put to them one and a half teacupfuls of milk, a beaten egg or two, a lump of butter the size of a walnut, pepper, salt and enough flour to make a batter. Add a heaped teaspoonful of baking powder, if only one egg is used. Drop from the spoon and fry in butter or dripping to a rich brown.

CHEESE FINGERS.—This is a good way to use up scraps of pastry left over from baking pies. Cut them into strips as long as your middle finger and twice as wide; strew with dry, grated cheese, a little salt and just a pinch of cayenne; double them lengthwise; pinch the edges together along their length, sprinkle more cheese upon them and bake quickly; pile within a napkin on a hot dish and serve at once.

To give a kitchen a neat appearance, and to keep it clean, it is a good plan to stain it. A farmer's wife describes how it may be done. "Put about an ounce of burnt umber in a quart of linseed oil; the amount needed will depend upon the size of your floor. A quart will go over a considerable surface. Mix the umber carefully into the oil, trying it occasionally to get the desired shade. Apply it with a woollen cloth, rubbing it hard to get the colour well into the pores of the wood. Then go over it with a soft, dry cloth, and after a few weeks rub it again with merely the boiled oil. Once in six months or more, according as needed, use the umber mixture again. With care in wiping up a floor thus prepared, that is, using tepid water instead of strong soap suds, it will last a long time. If the floor is walnut, the boiled oil and umber will be sufficient."

The Laziest Man in all the Town.

Composed by HIGGINS.

The piano introduction consists of two staves. The right hand plays a rhythmic melody in 2/4 time, while the left hand provides a harmonic accompaniment with chords.

1. When I was but a lit - tle lad, Not more than five years old, I

The first line of the song features a vocal melody on a treble clef staff and piano accompaniment on two bass clef staves. The lyrics are: "1. When I was but a lit - tle lad, Not more than five years old, I".

al - ways listen'd when my dad, This curi - ous sto - ry told, Of

The second line of the song continues the vocal melody and piano accompaniment. The lyrics are: "al - ways listen'd when my dad, This curi - ous sto - ry told, Of".

SLOW.
one who wan - der'd up and down, The laz - est man in all the town.

The third line of the song is marked "SLOW." and features a vocal melody and piano accompaniment. The lyrics are: "one who wan - der'd up and down, The laz - est man in all the town." The piano accompaniment includes a final chord in the right hand.

The piano conclusion consists of two staves, mirroring the introduction. The right hand plays the same rhythmic melody, and the left hand provides the same harmonic accompaniment.

2. This man's es-tate, or rank, or name, No per-son seem'd to know, Nor
8. He nev-er laugh'd, he nev-er spoke, Nor did he ev-er think; And

what his call-ing, whence he came, Could a-nny per-son show, They
when the dust blew in his eyes, Too la-zzy he-to wink, And

SLOW.
knew he wan-der'd up and down, and down, The last-est man in all the town.
so he wan-der'd up and down, The last-est man in all the town.

4.
The reason why he never talked,
And why he never sung,
Was, that he found it quite too great
A task to wag his tongue.
And so he wandered up and down,
The laziest man in all the town.

5.
He was so lazy that he slept
While standing on his feet;
And I had almost said—but no—
One thing he could do—eat.
And so he wandered up and down
The laziest man in all the town.

6.
And when he slept, the people all
Looked on with great surprise;
He was so plaguy lazy that
He didn't shut his eyes.
And still he wandered up and down,
The laziest man in all the town.

7.
At length this man so lazy grew,
He couldn't draw his breath;
For troublesome he deemed that, too,
And so he met his death.
No more he wandered up and down,
The laziest man in all the town.

8.
If that had been the last of him,
It had, indeed been well;
The strangest part of this strange tale
Remains for me to tell:
His ghost still wanders up and down,
The laziest ghost in all the town.

9.
For instead of leaving him to take
His journey down below,
It was, like him, so lazy,
That it quite refused to go,
And still it wanders up and down,
The laziest ghost in all the town.

Household Hints.

CAKE.—One cup of molasses, one cup of milk, four cups of flour, three cups of sugar, two cups of butter, eight eggs, two pounds of raisins, two pounds of currants, one pound of citron, one nutmeg, one teaspoonful of soda; bake slowly three hours; this will make two loaves, and is very nice.

JELLY ROLLS.—Four eggs beaten lightly, one cup sugar, one cup flour, one teaspoonful cream of tartar, one-half teaspoonful soda dissolved in a dessert-spoonful boiling water; bake in large meat pan; when done take out on napkin powdered with sugar, spread with raspberry jam and roll up lengthwise.

TEA KISSES.—Half cup butter, two cups flour, one cup sugar, two eggs beaten lightly, two tablespoonfuls milk, two teaspoonfuls yeast powder; dip out by the teaspoonful spread far apart on the pan; sprinkle with powdered sugar and bake in quick oven. It only takes a few moments, and they are delicious.

The attention of Carriage Builders and users are directed to the advertisement in another column of the "Adjustable Sand Box" and "Improved Concord Axle." These axles are far superior to any hitherto on the market, and are so acknowledged by all practical carriage builders that have given them a trial. The increasing demand for them proves their superiority over all others. Any one addressing A. F. Miles, Stanstead, P. Q., with stamps, will receive a cut showing the adaptability of the Sand Box and the preference for the axle.

RAISED MUFFINS.—Two cups of milk, a teaspoonful of lard or butter, three cups of flour, half a yeast-cake, a teaspoonful of salt sifted with the flour; heat the milk; stir in the shortening, and when blood warm add half the flour and beat hard for three minutes; let it rise in a moderately warm place all night; in the morning work in the rest of the flour and the salt; make into balls, and let it rise in greased muffin rings; set on a floured board. When light slip a cake turner under each and transfer to a hot griddle, well greased.

Poverty and Distress.

That poverty which produces the greatest distress is not of the purse but of the blood. Deprived of its richness, it becomes scant and watery, a condition termed *anemia* in medical writings. Given this condition, and scrofulous swellings and sores, general and nervous debility, loss of flesh and appetite, weak lungs, throat disease, spitting of blood and consumption, are among the common results. If you are a sufferer from thin, poor blood, employ Dr. Pierce's "Golden Medical Discovery," which enriches the blood and cures these grave affections. Is more nutritive than cod liver oil, and is harmless in any condition of the system, yet powerful to cure. By Druggists.

New York Farmers Club, Corning, N. Y.

We, the members of the Farmers' Club, having thoroughly tested the Higgin Euroka Salt, cannot speak in too high terms of its merits, and believe it to be the best salt now offered for preserving butter—the superiority of its manufacture placing it far in advance of Ashton, while it possesses all the good qualities claimed for Ashton.

Geo. P. Nixon, M. W. Robins, •
Andrew Bowden, James L. Packer,
Russell Mathewson, H. D. Smith.

DR. LOW'S WORM SYRUP has removed tape worms from 15 to 30 feet in length. It also destroys all kinds of worms.

**CATARRH
CATARRHAL DEAFNESS
A HAY FEVER
NEW
TREATMENT.**

Sufferers are not generally aware that these diseases are contagious, or that they are due to the presence of living parasites in the lining membrane of the nose and Eustachian tubes. Microscopic research has proved this to be a fact, and the result is that a simple remedy has been formulated whereby these diseases are permanently cured in from one to three simple applications made at home. A descriptive pamphlet is sent free on receipt of stamp by A. H. DIXON & SON, 303 1/2 King Street West, Toronto Canada.

BUTCHERS HOPE FOR THE AFFLICTED.

ANTISEPTIC INHALER.

The only sure cure for Consumption, Asthma, Catarrh, Bronchitis, and all Diseases of the Throat, Lungs or Nasal Organs is **Butcher's Antiseptic Inhaler.**

By using which proper healing remedies are applied directly to the affected parts, rendering immediate relief and a permanent cure.

Highly recommended by all Physicians. Send for Pamphlet, containing wonderful Testimonials, to **Antiseptic Inhaler Co., 4 King Street East, Toronto.**

HOLSTEIN-FRIESIANS.

STOP! THINK! INVESTIGATE!

LAKESIDE STOCK FARM,

Has the only Cow that has given 26,021 lbs. 2 oz of milk in a year.
The only four-year-old that has given 23,602 lbs. 10 oz. in a year.
The only two-year-old that has given 18,494 lbs. 13 oz. in a year.
The only herd of mature cows that has averaged 17,166 lbs. 1 oz. in a year.
The only herd of two-year-olds that has averaged 12,465 lbs. 7 oz. in a year.

The only two-year old Holstein-Friesian that has made 21 lbs. 10 1/2 ozs. of butter in a week.
Thirty-one Cows of this herd have averaged 30 lbs. 1 oz. of butter a week.
Fourteen Cows in this herd have averaged 22 lbs. 1 oz. of butter a week.

Also a fine stud of Clydesdale Stallions, Maras and Fillies and choice standard-bred Hambletonian Stallions. Send for Catalogue giving full records and pedigrees. In writing, always mention this paper.

SMITHS, POWELL & LAMB, Syracuse, N. Y.

SEEDS RENNIE'S GREAT DOLLAR COLLECTION \$1.00

OF GARDEN SEEDS.

RENNIE'S SEEDS ARE THE BEST And in order to induce hundreds of new customers to give them a trial, I am offering this Complete Collection of the very choicest Vegetable Seeds, The Collection contains full sized packages of the Improved Half-Long Blood Beet; Rennie's Selected Nonpariel Lettuce, the best in cultivation; the Montreal Nutmeg Musk Melon, the finest flavored Melon ever introduced; Henderson's White Celery, and standard varieties of Cabbage, Carrot, Corn, Cucumber, Water Melon, Onion (two best kinds), Parsnip, Radish, Spinach, Tomato, Turnip and Herbs; also a pound of the best Wax Beans, and a pound of the new Pea, Illia's Ever-bearing, which is the finest Garden variety in cultivation. The entire collection amounting, at Catalogue rates and postage, to \$1.50, will be sent free by mail to any address in Canada for **\$1.00** Order at once, and induce your friends to send with you. I will supply FIVE of the above Collections for \$1.00. My Annual Descriptive Catalogue now ready. Free to all applicants. Send for it at once.

ADDRESS, WILLIAM RENNIE, SEED GROWER, TORONTO, ONTARIO.

Recipes.

LOTION TO REMOVE FRECKLES.—Mix two ounces of rectified spirits of wine, add two teaspoonfuls of muriatic acid, with one pound and a half of distilled water.

OINTMENT FOR CHILBLAINS.—Calomel and camphor, of each two drachms; spermaceti ointment, eight drachms; oil of turpentine, four drachms. Mix well together. Apply, by gentle friction, two or three times daily.

TO RAISE A BLISTER SPEEDILY.—A piece of lint dropped into vinegar of cantharides, and immediately after its application to the skin covered over with a piece of strapping to prevent evaporation.

DYSPEPSIA, HEARTBURN, AND ACIDITY.—Pure water, five ounces; carbonate of ammonia, two drachms; syrup of orange peel, one ounce. Mix. For a six-ounce mixture.

WARMING PLASTER.—Burgundy pitch, seven parts, melt and add plaster of cantharides, one part. Some add a little camphor. Used in chest complaints, local pains, etc.

NECK OF PORK (ROLLED).—Ingredients—Neck of pork, forcemeat of chopped sage, a few bread-crumbs, salt and pepper, 2 or 3 berries of allspice. Bone it; put a forcemeat of chopped sage, a very few crumbs of bread, salt, pepper, and two or three berries of allspice, over the inside; then roll the meat as tight as you can, and roast it slowly.

LEG OF PORK (TO BOIL).—Salt it eight or ten days: when it is to be dressed, weigh it; let it lie half an hour in cold water to make it white; allow a quarter of an hour for every pound, and half an hour over, from the time it boils up: skim it as soon as it boils, and frequently after. Allow water enough. Save some of it to make peas-soup. Some boil it in a very nice cloth, floured, which gives a very delicate look. It should be small and of a fine grain. Serve peas-pudding and turnips with it.

Of earthly goods, the best is a good wife;
A bad, the bitterest curse of earthly life.

How many wives who to-day are almost distracted because of their many ailments, all tending to make home unhappy, would become the best of all earthly goods if they got rid of their troubles by using Dr. Pierce's "Favourite Prescription," which is an unfailing remedy for those diseases and weaknesses which afflict the female sex. Send ten cents in stamps for Dr. Pierce's complete treatise on these diseases, illustrated by numerous wood-cuts and coloured plates. Address, World's Dispensary Medical Association, Buffalo, N. Y.

Minnie Hawk Buys a Knabe Piano.

Messrs. William Knabe & Co. are in receipt of the following substantial tribute to the merits of their instruments from the celebrated prima donna:

"New York, December 20, 1886.

"Messrs. Wm. Knabe & Co.:

"Gentlemen,—The grand piano you furnished me for my concert tour, just ended, has still further convinced me of the superiority of your pianos. They are, indeed, unequalled, and I have determined, therefore, to purchase the above 'Grand' for my London residence, and have directed my agent to make the necessary pecuniary arrangements with you. Please make shipment by early steamer to my address, London, England, care of Messrs. Metzler & Co., and believe me, your sincere friend,
"MINNIE HAWK."

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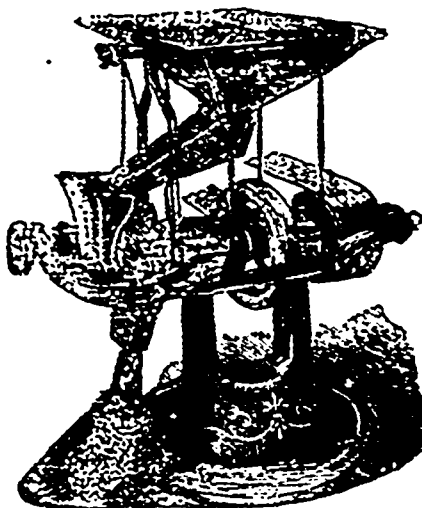
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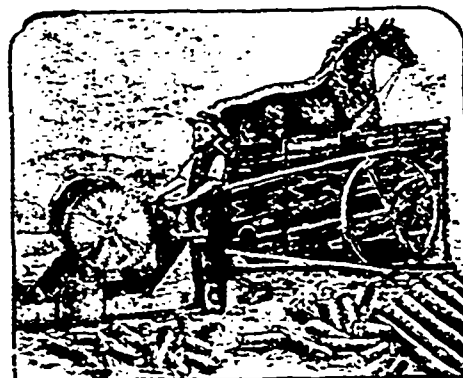
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Write for Prices and Terms.

Miscellaneous.

WILL some one please remove the bent pin from the Bulgarian throne.

CAN a man lose anything he never owned? Why, certainly; people lose railroad trains every day.

THERE is a great reading public who would like to know, Lord Tennyson, what became of Enoch Arden sixty years later.

A NEW YORK clergyman in a recent sermon exhorted his congregation to "vote as you pray," and later on he advised them to "pray often!"

"How does the 'literary fire' burn this morning?" asked a visitor at the sanctum. "First rate," replied the editor. "I have just thrown a dozen manuscript poems into the stove."

"How does the new girl strike you?" asked a citizen of Detroit, at dinner lately. "She hasn't struck me yet," answered his wife, meekly. "But she has done almost everything else."

A LITTLE city boy, who had just returned from his first visit on a farm, gave this description of butter-making: "You ought to just see how auntie makes butter with a barrel and a broomstick!"

CUSTOMER (to photographer): "I don't think the picture does me justice." Photographer: "My dear sir, if photography did justice to every one who has his picture taken, it would soon grow unpopular."

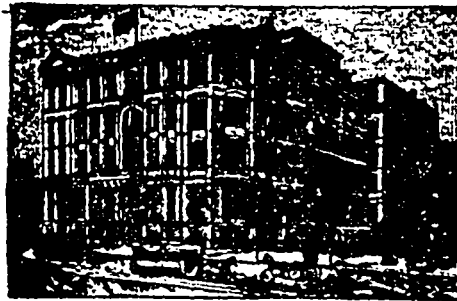
"MADAME," said a trance medium, "your husband's spirit wishes to communicate with you." "No matter," said the widow; "if he's got no more spirit in the other world than he had in this, it's not worth bothering about."

"MAMMA, what is colour-blind?" asked little Nell. "Inability to tell one colour from another, my dear." "Then I guess the man that made my geography is colour-blind, because he's got Greenland painted down yellow."

If anything clogs the waste-pipes in the house, we become alarmed, for sewer-gas is apt to generate disease. The children, then, are removed to their grand-parents', or kept out-of-doors as much as possible, until the defect is remedied. But the waste-pipes of the human system are often allowed to clog, and the sufferer, who cannot get away from the poison, becomes unfit for work or pleasure. In such cases, Dr. Pierce's "Pleasant Purgative Pellets" will gently remove the cause, and the effect will vanish of itself. By druggists.

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Napoleon the Gr (there was only one great Napoleon) wished the word impossible banished from the dictionary. In many a case where leading physicians have pronounced a cure impossible, consumptives and victims of other fell diseases have been restored to health by using Dr. R. V. Pierce's "Golden Medical Discovery." Soothing and healing in its nature, its power over scrofulous and pulmonary diseases is simply marvellous. Far more nutritive than cod liver oil, a powerful invigorating tonic and harmless as it is powerful.



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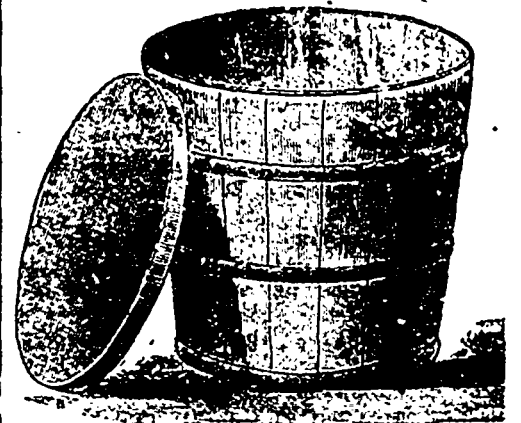
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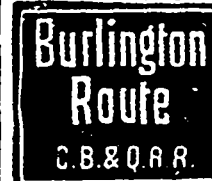
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Miscellaneous.

"MR. CHAIRMAN," said a member of the Dentists' Convention, "we must be united. We must all pull together."

WHEN Rowland Hill was asked why he had Surrey Chapel made round, he said that it was in order that a certain unwelcome guest should not have a corner in it.

A GENTLEMAN was once walking with an ignorant judge who stumbled over a stone and fell. "I am glad," said the gentleman as he lifted him to his feet, "that there is one law you cannot override—the law of gravitation."

"A THOUSAND and One Words" is the title of the new novel, written by a lady and gentleman in collaboration. The odd word was probably worked in by the man.

A FRENCH preacher, preaching from Calvin's pulpit in Geneva, told his hearers that it was "in that Biblical city, or thereabouts, that Paul planted and Apollinaris watered."

"YOU are like the weather," said Jones to a witty young lady. "That is rather a doubtful compliment, Mr. Jones," she replied. "The weather is variable, you know." "Yes," replied Jones, "perhaps it is. But it always makes itself felt, you know."

A LAWYER once asked a Quaker if he could tell the difference between "also" and "likewise." "Oh! yes," said the Quaker. "Erskine is a great lawyer. His talents are admitted by almost every one; you are a lawyer *also*, but not *likewise*."

"DID you carry that prescription to old Mrs. Smith last night?" said a doctor to his office-boy. "Yes, sir." "Did she take it?" "Yes, sir." "How do you know?" "Crape on the door this morning."

AN Irish gentleman having purchased an alarm clock, an acquaintance asked him what he intended to do with it. "Och," answered he, "sure, I've nothing to do but pull the string and wake myself."

SARAH JANE: "Well, Aunt Cruzer, did you have a nice time at the Bowlers?" Aunt Cruzer: "Nice time! well, it's the last time I set my foot in that house. Why, when I come to go, they didn't even say, what's me hurry."

"CONDUCTOR, why didn't you wake me up, as I asked you? Here I am miles beyond my station." "I did try, sir, but all I could get you to say was, 'All right, Maria; get the children their breakfast, and I'll be down in a minute.'"

CAPTIOUS DEACON: "Our people desire extempore sermons, and yet you persist in using notes." Famishing pastor: "My dear brother, as I never have any notes in my pocket-book to use, you should not object to my using notes in the pulpit."

TEACHER: "The class in ancient history will please stand up. Miss White, what was Ceres-goddess of?" Miss White: "Goddess of matrimony." Teacher (sarcastically): "I am surprised at your ignorance, Miss White. Where did you learn that?" Miss White: "From the book." Teacher: "What does it say?" Miss White: "Ceres, goddess of husbandry."

Brown's Bronchial Troches

Contain ingredients which act specially on the organs of the voice. They have an extraordinary efficacy in all affections of the throat, caused by cold or over-exertion of the voice. They are recommended to Singers and Public Speakers, and all who, at any time, have a cough or trouble with the throat or lungs.

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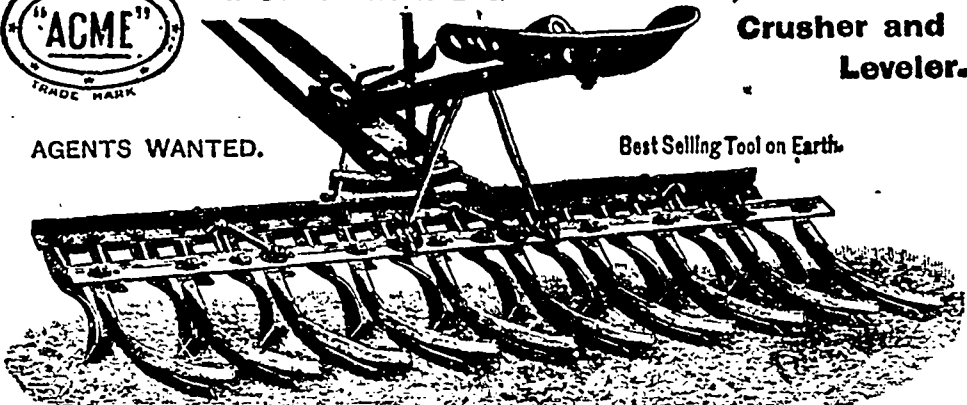


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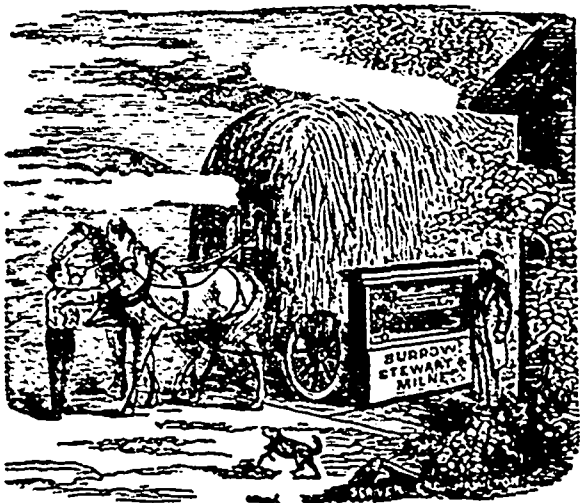
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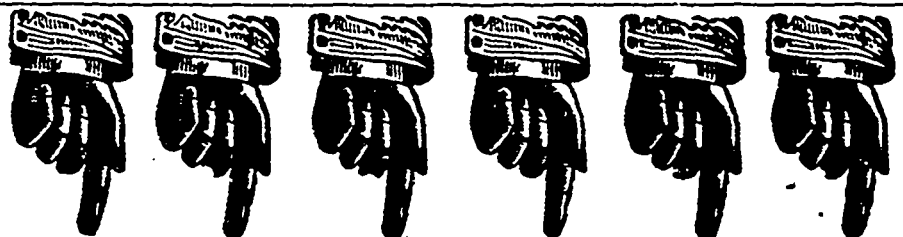
S. Lansing, Yonkers, N. Y., writes: "Recommended to me as a cure for chronic Costiveness, Ayer's Pills have relieved me not only from that trouble, but also from Gout. If every victim of the disease would heed only three words of mine, I could banish Gout from the land. Those words would be, 'Try Ayer's Pills.'"

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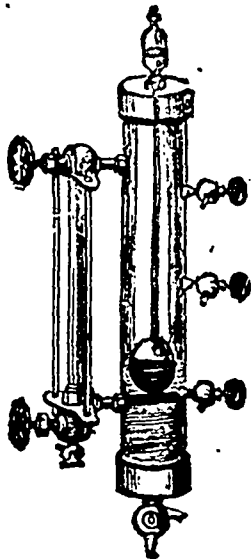
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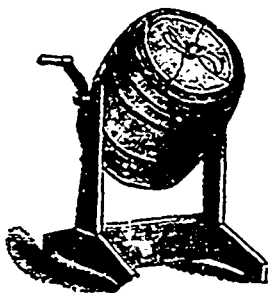
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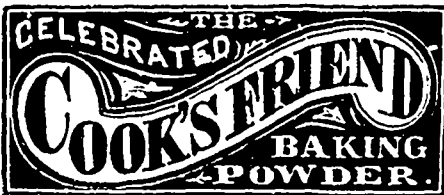


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No variation from or addition to that simple name is genuine. Manufactured only by

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Granolithic resists Lactic Acid.

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Butter and Cheese Salted with it Carried the Highest Premiums over Everything Else wherever put in Competition.

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Mix. Make 60 pills. Take 1 pill at 8 p.m., and another on going to bed. In some cases it will be necessary for the patient to take two pills at bedtime, making the number three a day. This remedy is adapted to every condition of nervous debility and weakness in either sex; and especially in those cases resulting from imprudence. The recuperative powers of this restorative are truly astonishing, and its use continued for a short time changes the languid, debilitated, nervous condition to one of renewed life and vigor.

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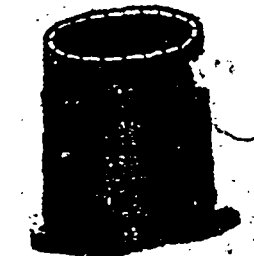
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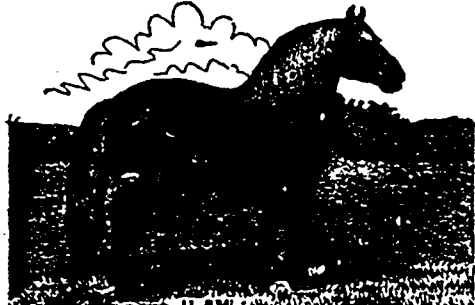
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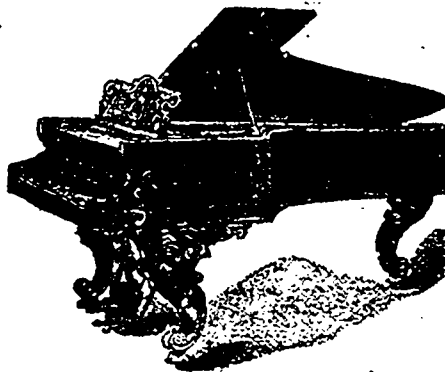
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