

SEPTEMBER, 1884.



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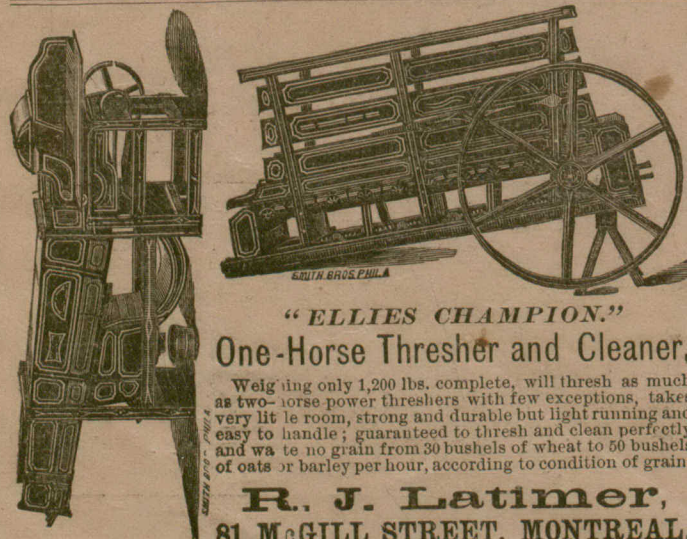
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CANADIAN DAIRYMAN AND FARMER.

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MONTREAL, SEPTEMBER, 1884.

5cts per Single Copy

No. 2

THE CANADIAN DAIRYMAN AND FARMER.

A monthly journal devoted to the dairy and allied interests of Canada.

Subscription.—Canada and United States, 50 Cents a year in advance; Great Britain, 2s. 6d. a year in advance.

The co-operation of all dairymen is earnestly solicited on behalf of the CANADIAN DAIRYMAN, and the publishers will at all times be glad to hear from them on topics of interest to the industry. Visitors to Montreal will always be welcome at the office of publication.

Advertising rates furnished on application.

All correspondence to be addressed to

CANADIAN DAIRYMAN PUB. CO.,

162 St. James Street, Montreal.

See announcements relating to clubs and prizes in another column.

EDITORIAL NOTES.

Frogs will soon be quite an item among our list of exports. Large quantities have this season been shipped from districts in Quebec and from the vicinity of Cobourg, Bowmanville and Oshawa, in Ontario.

Mr. Frank Turner speaks to a Toronto *World* reporter in high terms of the Muskoka region as a grazing and dairy country, the pasturage being so rich and the water so pure and well distributed.

Canada to the front again! Valency E. Fuller, of Hamilton, the well-known breeder of Jerseys, sold five Jerseys, in New York, in May, for the interesting little sum of \$16,750 dollars, or an average of three thousand three hundred and thirty dollars each. Mr. Fuller intends to continue breeding the same stock—the Stoke Pogis 3rd Victor Hugo blood. His confidence in this strain was always great—before the breeding world had appreciated it—and he states that it was never greater than at present.

The British Association, whose annual meeting was held on this side of the Atlantic for the first time, at Montreal, just closed, has given very satisfactory prominence to Canadian agriculture,

The harvests are unusually good this year, all through Canada. An abundance elsewhere will make prices low, but let us be thankful for plenty under such condition, rather than scarcity under any condition.

In the newly announced political creed of the *Canadian Farmer* is found the excellent demand for "The introduction of agriculture into the rural school studies." This is heartily endorsed by the CANADIAN DAIRYMAN. The time has come for necessary advance like this to be hastened with all reasonable force. Let agricultural and dairy practice be reduced to science, and be taught, by best modern method, such as object teaching, etc., in place of much that is now taught which is sometimes not understood, and sometimes useless when learned. Do not let the subject drop.

Mixed farming finds another advocate in a writer in the *Iowa Homestead*. He claims that, where it is engaged in, mortgages are few, debts are less, and greater prosperity exists than where specialties are in favor, exclusive of more or less mixed farming.

The *Star* has commenced an agitation for a public library for Montreal. It has our hearty sympathy. Even from an agricultural point of view such a library would be an immense benefit. The collection of agricultural statistics will soon be taken in hand by the Dominion Government, and these and the general literature of the farm can be preserved here to better advantage than in any other way. It would thus be available not only to farmers visiting the city, but to the large number of citizens who have an interest in the subject.

The subscription to the CANADIAN DAIRYMAN will not long remain at 50 cents. Those who take an interest in the paper will do well to subscribe at once. The reader is referred to the special inducements offered in another column to new subscribers.

We have a word to say to our readers about our advertisers. We have not, and do not wish to, give insertion to ordinary patent medicine advertisements, or other announcements that appear to be of a questionable nature; and we have solicited only the better class of dealers and manufacturers in our columns. We have done so believing that much evil has resulted to

the families of farmers by the presentation of announcements of the fraudulent and pernicious kind that too often find their way into family newspapers, and we know of cases where the ruin of children can be directly traced to such sources, while many parents have been obliged to exclude from their homes journals that were otherwise good and instructive. We do not wish to be understood as guaranteeing the character of our advertisers, even in a business sense, but we believe our readers will find them to be at least fairly honorable men in business. Believing this, we think it only just to ourselves to ask readers whenever they write to or deal with an advertiser in these columns to make reference to the DAIRYMAN as the medium of connection.

Says the *Uxbridge Journal*: Another season of low prices has dawned upon us, consequent mainly upon a large European make. Until this is disposed of there will be little chance for our low Canadian butter. Farmers seem dissatisfied with the price here, and are disposed to hold until fall, looking for a rise then, but we opine those do the best who take prices as they go, selling while the butter is fresh. We have buyers who will take all the butter for cash at present rates. The day is past for selling stale butter at the same price as fresh. We think this will be made evident in the fall, when old butter comes in and cannot be sold except at a great reduction.

Watering and skimming milk is not confined to milk vendors in large cities. The *Campbellford Herald* reports that three dairymen of Seymour were recently fined for watering milk, and skimming cream therefrom. One had to pay for the water and the others for skimming.

Why, asks the *Ingersoll Chronicle*, have the prices paid for cheese at Ingersoll during the past month been so much higher than those realized at Utica and Little Falls? Is it because the quality of our goods is better; is it because there is more competition between buyers here, and they are paying more than the cheese are worth; or is it because cheese from this district commands a better price in the home market? No one seems to be able to give a satisfactory answer, but it is certain that the New York dairymen have not improved the reputation of their

goods by their practice of making skim milk cheese. Skim cheese are now selling in the New York market for twenty-five cents a box.

The pioneer cheese reporter of Canada is said to be the late H. Rennie, of the township of Dereham, Oxford County, Ont. He started to export between the years 1840 and 1850, during which period he made a cheese weighing 600 lbs., which was sent to England as a gift to Queen Victoria. Special appliances were built to make this cheese, for which Mr. Rennie's neighbors contributed the milk, and which was said to be of excellent flavor.

Mr. Wm. Rennie of Toronto, a practical farmer and large dealer in agricultural implements, advocates a system of instruction in dairying which would be highly efficient if placed in good hands. He suggests, through a reporter of the CANADIAN DAIRYMAN, the appointment by the Government of one or more instructors whose business would be to travel through the country and give public instruction, free of charge, at central places in each county or district. This could be done efficiently through the Agricultural Societies or the Granges, or both, and would be comparatively inexpensive. We should be glad to receive further suggestions on the subject.

PROTECT YOUR IMPLEMENTS.

The uses of kerosene are various and increasing. It makes an excellent application to wood that has to stand the weather. A friend applied it to wooden seats in his lawn, and he claims it proved an excellent preservative. We therefore have, much faith in the following extract:

Every farmer should keep a can of the following mixture: Kerosene, two quarts; linseed oil, one gill; resin, one ounce. Melt the resin in the linseed oil, and add to the kerosene. Coat all steel or iron tools, wherever bright, with this when they are to lie idle, if for only a few days. It will not take half a minute or half a teaspoonful of the mixture to coat a plow, when one has finished using it, and it will prevent all rust and save half a day's time in cleaning it when it is again needed, besides saving the team many thousands of pounds extra pulling. Coat the iron work of the mowers and reapers with it when they are put away for winter. A little rust is only a little thing, but it makes much difference in the aggregate."

There are some specialties in farming that are more satisfactory than others. One of these is dairying. Exclusive grain-growing exhausts the land, dairying cannot be exclusive, but involves raising of stock, etc., and is not exhaustive to the soil. Indeed, dairying may be engaged in at a profit, and renovate the land that has been exhausted by grain-growing.

The peculiar advantages of dairying will of course, from time to time, be pointed out in our columns. It is enough now to say that these advantages are being noted simultaneously in different countries and if Canada would hold her own, and perhaps take the lead, she must move at once to the front.

ARTIFICIAL MANURES.

It is becoming a matter of popular knowledge that different plants are composed of different elements, these elements existing in varying proportions in different soils; that continuous cropping takes from the soil a proportion of these elements, and that the soil thereby becomes impoverished.

Grain crops are rich in phosphoric acid; legumes, or pod plants, such as peas and beans, are rich in nitrogen, and root crops in potash.

Based upon the chemical knowledge obtained, and the theory that naturally came of such knowledge, there has sprung up quite a business in supplying artificial fertilizers.

These special manures, says *Science*, have enjoyed great popularity, almost every prominent fertilizer manufacturer producing fertilizers for all conceivable crops, even for orange trees. These fertilizers have seldom had the same composition in two successive years; and those of each maker had differed from those of every other, thus affording to consumers an abundant variety from which to choose."

This would go to show that the art of artificial supply of exhausted plant food is yet crude.

The article quoted draws attention to some recent experiments, which bring out facts that are not strictly in accord with existing theories and practices, and it has been thought well to bring the subject to the attention of our farmers, any of whom are likely to make use of purchased fertilizers.

The current idea is that crops must be manured most abundantly with those elements which they contain most abundantly. As a proof that this is not altogether true, it is claimed that, while clover contains twice as much nitrogen as wheat, experience has shown that wheat is more benefited by nitrogen than is clover, the latter being comparatively indifferent to nitrogen. Indeed, it is a common practice to grow wheat after clover, using the latter crop to gather nitrogen for the former.

"It is of course, unsafe to generalize from these experiments. At the same time their results correspond so exactly with the teachings of experience regarding the most suitable manuring for legumes and cereals respectively and appear *a priori* so probable than one can hardly avoid a strong belief in their general application. They certainly open an interesting and important field for further research. If it can be shown that, in manuring any given plant, we ought to direct our attention more particularly to those elements of its food which it contains in relatively small quantity rather than to those present in abundance, we shall have made a very considerable advance in our knowledge of the theory of manures."

DAIRY STOCK.

TRADE WITH ENGLAND.

In the last report of the Minister of Agriculture, under the heading "Exportation," some interesting statistics are given showing the marvelous growth of our cattle exports since 1877. The figures speak for themselves, and fully warrant the trite remark that precedes them, viz:—The cattle trade of Canada has ceased to be an experiment." Canadian fat cattle now form an important factor in the supplies offered regularly at London, Liverpool, Wakefield, Manchester, Bristol, Barrow, Southampton and other leading markets of England. In Scotland, Glasgow has for many years been the *entrepot* for Canadian stock, both fat and lean, large numbers of stockers being annually sent there by well-known exporters, who, we have no reason to believe, are better satisfied with their returns for this class than for the heavier finished animals. It is not, however, our intention just now to enlarge upon the commercial value or greatness of either branch of the established export business, but rather to present a new aspect of the trade, which, appealing as it does more directly to the interests of Dominion Dairymen and farmers, will, we trust, be found worthy of their serious consideration. The special feature we refer to is the development of a milch stock export trade, in which line as yet the experimental process can hardly be said to have begun. At the present moment Great Britain has entered upon a new course of scientific education in dairy matters, and under the auspices of her numerous and wealthy agricultural societies, one or two establishments have been opened with the view of demonstrating the advantages of the "factory" system of dairy production. Foreign competition in cereals has reduced the British grown article to such a price that its ultimate disappearance in bulk from future markets is only a question of time. In like manner the supplies of fat stock and dead meat from the United States, Canada, New Zealand and Austria, have left the grazier nearly stranded, despite the *ex gratia* reductions generously made by benevolent landlords, who have for years been drawing rack-rents from their toiling tenants. Thousands of acres in the choicest districts of England have been thrown upon the hands of avaricious landlords, who refused to bate one cent of the rent, preferring to let the land lie idle and unproductive, rather than be the first to admit a depreciation in the value of their inherited acres. This agricultural depression has existed now for over seven years, and many people fancy that, with the introduction of a new educational era in farming economy, a cycle of plenty will succeed the seven years' famine. We do not stop to discuss

this point. What we wish to indicate is that this new departure has for Canadian farmers a peculiar interest, inasmuch as the resources of England to carry on the new system are insufficient, and that she must look beyond the sea to replenish her exhausted dairies, and put them on a footing commensurate with the increased demand that will be made upon them. America is banned in consequence of the disease which from time to time swept through her vast herds. Norway and Sweden have no stock to spare, and even if they had the indifferent grades which they possess would not be acceptable to the fastidious English dairyist accustomed to high-class, pedigreed stock. Other continental countries are similarly situated, with the additional disadvantage of being "scheduled" among the unclean. New Zealand and Austria are as yet too remote, so also is South America. Besides these three great countries are only beginning to pay attention to the grading of their flocks and herds, and have no neat cattle fit for exporting. The only country, then, to which England can look for a suitable stock is Canada, and we think she will not look in vain. For years the choicest blood of the Old Country's herds have been brought to the Dominion at an immense outlay of capital, which, in the eyes of many, no doubt appeared frightfully extravagant, but which will begin now to return itself an hundred-fold. The progeny of these high-priced high-pedigreed beauties will be gladly bought back by the dairymen of England, who, naturally eager to participate in the profits of the blessed factory system, finds his desire frustrated by the exorbitant prices asked by dealers in milch kine. Right here is where the Dominion exporter comes in, and offers his well-bred young heifers, or newly-calved cows at prices which allow an honest profit to buyer as well as seller. Dairy cows of fair to choice quality are worth in England from \$100 to \$120, in good milkers; and even with the high ocean freights now current (\$15 to \$20) ought to be got here in sufficient numbers at prices which would leave a fair margin to the exporter. The writer has seen beautiful specimens of Canadian milkers offered as beef in Stanley market, Liverpool, Eng., at prices which would make a cowkeeper's mouth water, and is aware of instances where cows have been bought by dealers in Salford, (Manchester, Lancashire) and taken into Yorkshire, where they were re-sold as prime English milkers at a profit of \$20 per head. We have said that this branch of the export business has scarcely entered upon the experimental stage,—as a matter of fact the attempt has been made, and with sufficient success to encourage its repetition. To Mr. Thomas Lloyd, of Pembroke Place, Liverpool, Eng., belongs the honor of pioneering this business, and,

while we write, his representative, Mr. W. C. Bullen, is fast making his way to this country, with the view of securing regular shipments during the latter part of this season, and arranging for its development in the future. Those of our readers who may wish to learn further particulars as to this matter would do well to communicate with Mr. Bullen, who will be found at the Exchange Hotel, Point Saint Charles.

A MODEL CREAMERY.

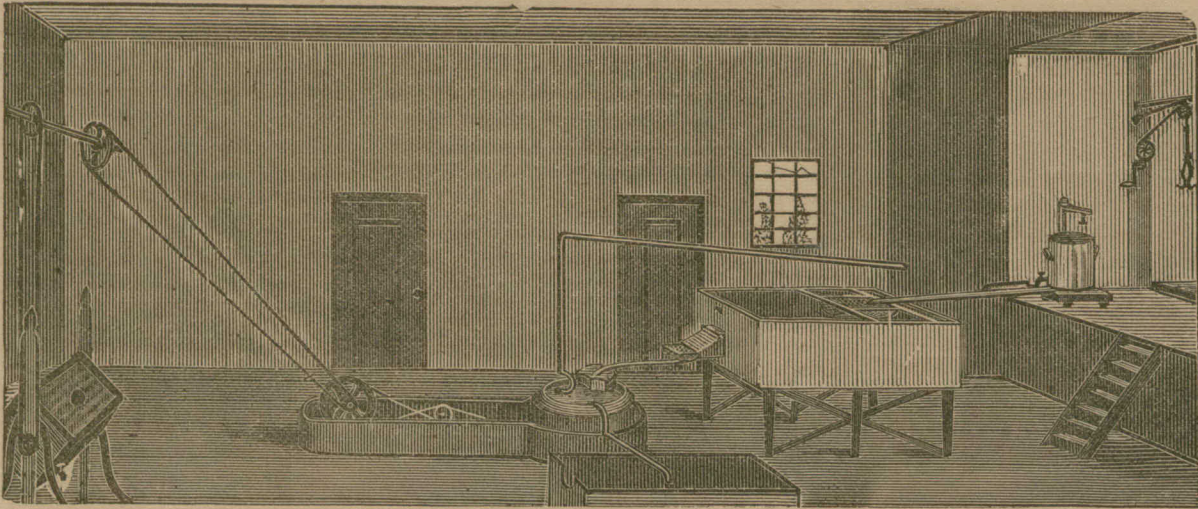
A representative of the CANADIAN DAIRYMAN lately paid a visit to the village of St. Sebastien, Q., and while there was shown a new creamery, which seemed to be so well arranged and was so highly spoken of by visitors that we considered worthy of an illustration in these columns, and now present our readers with two sketches, page 20, one showing the interior of the factory, the other a plan of the ground floor.

The new creamery is situated at the outskirts of the village of St. Sebastien, County of Iberville, and, like almost every village location in the famed Eastern Townships, is abundantly supplied with pure water. It was built by a joint stock company, composed of some 35 persons, about 30 of whom are farmers living within a radius of two or three miles. The creamery was built, equipped and put into operation within two months, having been commenced in May last. The entire cost was \$3,000, and nearly all the shareholders, who are contributors of milk, are French Canadian farmers.

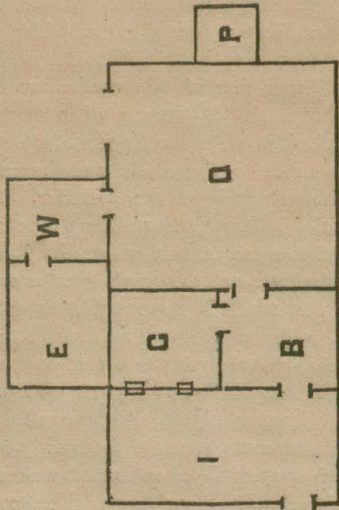
The factory is built of wood, is 54 feet long, exclusive of milk-receiving platform, and has a floor of cement, which is laid down so as to drain naturally and easily. The various departments, as shown in the diagram, are as follows: E, Engineroom, 12 x 15 feet; W, washroom 12 x 9; I, icehouse, 14 x 28; C, cellar, 12 x 14; B, butter room, 12 x 14; O, operating room, 28 x 28; and P, platform for receiving the milk.

The milk is brought in about 6 in the morning, there being only one delivery per day, as a cream-separator is used. Having been lifted from the wagon to the platform by a derrick, as shown in the cut of the interior, the milk is weighed, and is let off from the top of the weighing can into a tin trough, which carries it into a strainer, the strainer being suspended by rods across the receiving vat. This vat has a capacity of 7,500 gallons, being 9 feet long and 4 wide. At the end which lies towards the middle of the room it has an ingenious heating attachment. The shape of this contrivance, which is made of tin or zinc, may be gathered from the engraving. The upper part consists of a trough, the bottom of which has perforations through which the milk as it is drawn from the vat flows in

dribblets and pours in a very thin sheet over the face of a corrugated incline, like a hand washboard in appearance. Steam or water from the boiler is admitted to the space under this inclined board, so that, as the thin sheet of milk flows over, it is easily and evenly-heated to any temperature desired. Thus a special vat, or other arrangement for heating, is unnecessary; and, as the milk is gathered in a trough at the bottom, and is led by a pipe to the separator, it is already at the proper temperature for separation. The separator (a sample of which is seen in our advertising pages) is a cylindrical receptacle of iron, supported on a shaft or pivot and capable of revolving it at the immense rate of 4000 to 7000 revolutions a minute. When it begins to move there is scarcely any change in the position of the milk in the cylinder, but, as the speed increases, the milk is thrown by centrifugal force to the outside of the cylinder more and more till at last it presents a perfectly vertical wall. The water and other heavy constituents are thrown with such force outward that the particles of cream, which are lighter than the other constituents, are left on the inner face of this vertical wall of revolving fluid. By means of accurately adjusted pipes the cream is caught up and thrown off from the inside and the milk from the outer side of the cylinder. The skim milk is thrown upward in a pipe, and flows off to a can outside, where the farmer takes his share, and the cream goes into the cream vat, which is about 9 feet long and 1½ feet wide, with a cylindrical bottom. The vat is cooled by ice or heated by steam or water as required, and holds 2,500 lbs. of cream. Having brought the cream to the proper temperature, which is usually 58° in this factory, it is taken into the churner which is a revolving box churn with a capacity of 300 lbs of butter. The churn stands near the door of the butter room in which the article is worked by an octagon-roller butter worker of large size. The butter when packed is placed in the tubs in the cellar adjoining, this apartment being cooled by shafting, which admits cold air from the ice-house. Thus each apparatus is placed so that the different processes are carried out with facility, the position of the wash-house being perhaps the only thing to be criticised in this respect. The factory is run by a ten-horse power engine, and hose is provided for flushing and fire extinguishing purposes. The cream separator here used is that of Burmeister & Wain, having a capacity of 1,600 lbs per hour. The heating apparatus appears to be a very serviceable appliance. The creamery was erected under the superintendence of Mr. S. M. Barre, whose studies in Quebec and whose investigations of the Danish system of butter-making have made him well-known among Canadian dairymen.



The St. Sebastien factory now turns out from 140 to 150 lbs of butter per day, and its products have, we learn, been readily taken up by dealers in Montreal at higher prices than rule in the Eastern Townships.



A DeLaval cream separator and a Burmeister and Wain separator will be working on the grounds at the Montreal and Toronto Exhibitions. The DeLaval exhibit will show a complete working creamery.

In an interesting address before the British Association Prof. Brown of Guelph Agricultural College thus refers to the live stock trade. A prominent new feature of Canadian Agriculture was her live stock interest. Canada could produce pure-bred animals at about half the cost in Britain, because of the cheaper crops, fewer deaths by disease, and could feed and furnish beef and mutton at less than half the cost. The effect of the United States upon Canadian agriculture was a very clear one. We produce some crops that they cannot, while they produce some we cannot. They want live stock, we want corn; they have a "clear road to the British market," we have no hindrances to it; they required facilities, we want money. (Laughter)

After alluding to the establishment of Agricultural colleges, Prof. Brown concluded by remarking that we had arrived at that stage in national enterprise when the bone and sinew were good but our future in the world's agricultural market must be cautiously and firmly handled. (Applause.)

Commenting on the remarks of Mr. Ayer on butter making, quoted in last issue, the *Orillia Packet* says: The remedy is plain; let us improve our method, and, by making on a large scale, ensure a uniform quality. By so doing we should not only double our export price, but obtain more from a certain quantity of milk. Cork used to be first, now Denmark takes the lead. We have as good materials and opportunities, and if we could only cease to go against nature in depending upon timothy for pasture there is no reason why we should not equal either of these countries.

A representative of the *CANADIAN DAIRYMAN* has just returned from London and Toronto, over the recently finished Ontario and Quebec road, and expresses himself in high terms of the equipment and management of the new route from Montreal to the west. The first-class passenger coaches are beautifully furnished, and each provided with wash-stands and washing water, besides the closets, etc., while the drawing-room cars have wide windows affording an unusually broad view. But the most creditable feature of the road is the second-class sleeping cars, which are ingeniously arranged so that the seats slide down and meet, forming a double sleeping berth, there being also upper berths on the plan of the first-class sleeping cars. One of these cars would accommodate 100 persons "at a pinch" and must prove a great boon to people who travel long distances, and cannot afford first-class accommodation. The new road runs from Montreal the greater part of the way through a district nominally long settled, but still undeveloped, and the line must open up hundreds of farms till now comparatively worthless. Our representa-

tive was struck with suitability of many of these districts for dairying, the water being plentiful any accessible and the pasture rich. The progress in dairying made by such places on the line as Tweed, for instance, show the possibilities of a greater part of this newly-opened country.

We would ask our readers and the managers and patrons of cheese and butter factories in particular to forward to the *DAIRYMAN* the reports of their season's work, with any notes they may think useful. These reports and notes will always be interesting and instructive, and will do much to advance the industry in various ways.

BOOK NOTICES.

We have received from the Secretary the last Annual Report of the Bureau of Industries for the Province of Ontario. It contains much valuable information, statistical and general character; and in acknowledging its value we can only express regret that the Province of Quebec has no such Bureau for collecting agricultural statistics.

The *Canadian Farmer*, a Journal that has its admirers in all the provinces, begins its seventh volume in a new dress. In future it will publish semi-monthly, instead of weekly, as heretofore. Whether or not its readers will find an improvement in the change we do not surmise; but the paper is certainly a good and cheap one, as it stands.

We have to thank Mr. Clinton Babbit, secretary of the Wisconsin State Agricultural Society, for the report of that organization for 1883-4. The report is a volume of nearly 1,000 pages, printed in clear type, and embraces full reports of almost any branch of agriculture carried on within the State. It is elaborately illustrated, and contains a vast fund of facts and figures, from which we shall take pleasure in drawing at an early date.

The Herd and Flock catalogue of the Ontario Experimental Farm for 1884 has reached us. It contains a list of imported stock only, and the introduction states that by this fall the farm will have representatives of every type of cattle and sheep known as important in the world. There will then be ten different breeds of cattle.

PROVERBS FOR THE FARMER.

Better let the thief steal the poorest cow than sell the best one.

He is a foolish man who runs his mill with no grain in the hopper. So said the farmer who foddered his cows just enough to keep them alive.

Foul water will make good milk, when brass turn to gold.

Quick churning is a friend to Loss; even as fast eating will woo Dyspepsia.

DEMANDS OF THE CHEESE TRADE, AND THE DEFECTS IN THE SUPPLY.

By ROBERT McADAM, Esq., ROME, N.Y.

The most urgent demand at present existing is for the elevation of the inferior grades, in all their forms, up to a higher level in the scale of quality; the accomplishment of this is an arduous work, but is worthy of the best efforts of all persons engaged in, or who are interested, in making the most of the milk produce on your farms. Therefore, I will call your attention to some of the demands of the trade which remain unsatisfied, and which will be to the advantage of the dairy interest to have corrected. I will allude to the various faults which frequently disfigure and lower the value and reputation of so many factories.

The standard quality of fine cheese has remained the same for many years, namely solid, close-textured, fine-flavored, mild, rich, sound, handsome, clean-looking, cheese. And it is gratifying to state, that, in many factories throughout the season these characteristics are so well maintained that little more is to be desired than to keep up the present excellence. But in many factories which are esteemed fine (during a few months in summer) their spring and fall cheese are very far from being up to that standard. One of the most urgent demands of the trade is for these cheese (the spring and fall goods) to be elevated to the level of the best. Now I assert that this fault is generally within the control of the makers, and is due either to lack of care or skill on their part. Probably there are not many makers who do not understand the causes which prevent the desired solidity (in fall cheese), viz., insufficient breaking of the curd and lack of sufficient cooking, besides not allowing the curd to become sufficiently changed to acidity before it is salted. By these points being understood and corrected, it would wipe out several of the most serious defects at present existing.

TEXTURE.

When the cheese trier, guided by the hand of an expert, is driven into the still heart of the cheese under inspection, the body or texture of the tried cheese is laid bare, and a smooth outward appearance no longer hides from view the internal faults, and solidity of body and closeness of texture are essential points in determining the grade of quality amongst which the tried cheese will take its place. This will indicate to the cheese-maker the imperative necessity of clearly comprehending the causes or conditions in the curd which gives to the ripened cheese the desired solidity of texture. And this knowledge of the cause must be backed up by the determination to apply it

in practice so as to secure the desired result, for the demands of the trade require it, and will not be satisfied until this is attained. It is surprising that so very many of the cheese shipped abroad and offered for sale in New York are lacking in body and solidity of texture, and this fault may be entirely eradicated in all, as it is already in many. When the curd is heated to the desired temperature maintain the heat, and let the maker wait with patience until the change has come, which will ensure the production of a solid, well-made cheese. October milk, well handled, will produce as fine cheese as any of the season, and it lies within the maker's power to bring this result about, and at this season of the year the curd should be put to press as warm as possible; the presses should be placed in a room where the temperature is never below 60°, and when taken to the dryroom, they should be kept in a temperature never allowed to fall under 70°, there the moisture remaining in the cheese will evaporate; the cheese will cure and retain their color, until they become ripened and fit for cutting. The cold, damp, clammy, weak, mottled goods will disappear. The purchaser will escape the loss which often follows in the wake of late-made cheese, and the salesman and patrons will hear a good report, and the maker will be gratified to learn that his care and skill have been successful, and his efforts appreciated, and he will go forward in his successful course, reaching out the helping hand to others, and by generous assistance and advice aiding his fellow cheese-makers up to the higher plane, where fine goods are the rule through the entire season. This is the work that remains to be done, and the best efforts of patrons, makers and conventions should be directed towards this end; no new system is needed—utilize the lessons that have been so long propounded annually that their repetition in addresses is becoming distasteful. Just carry into practice the suggestions made by those whose cheese are invariably fine, and don't grope after something new and doubtful, and by doing so get off the track, when, instead of correcting defects, new and unexpected ones will be the result.

FLAVOR.

The flavor of cheese is the most essential requisite in the composition of the finest quality, and this subtle element is dependent upon contingencies, many of which do not come under the control of the cheese-maker. They originate in the food and drink of the cows, the absorption of odors from impure surroundings, improper keeping and treatment of the warm milk, etc. During the process of making in the factory, the treatment of both milk and curd has a decided effect in determining the flavor of the product; therefore the aim of patrons and makers should be to preserve and maintain in its purity the natural flavor of the milk. Fineness of flavor in cheese is one of the most pressing demands of the trade, and it forces itself with emphatic distinctness (from the cheese trier) upon the practiced senses of sellers and buyers whose avocations bring them daily into contact with so many different factories, when, by comparison, they require a more accurate knowledge of the merit or demerit of cheese than it is possible to gain elsewhere. A very frequent cause of bad flavor is the use of too much rennet; this is often increased by the rennet being impure, and the greatest care should be exerted on both these points.

COLOR.

The coloring of cheese is denounced by many as an unnecessary expense, which in

no way improves the quality. The great demand, however, for colored, in preference to white cheese, proves that the majority of consumers prefer it colored, therefore manufacturers have to make a virtue of necessity by complying with this requirement. The aim of cheese-makers when they do color, should be to accomplish this in the most satisfactory manner. The London, Liverpool and Glasgow markets call for different shades of color, and when cheese are made for any particular market it is best to give the desired shade of color, care being taken to have it uniformly the same. To ensure this the greatest care should be taken to secure the best coloring, to be accurate in giving the proportions according to the quantity of milk, to mix immediately and completely with the milk, never mixing curds of different shades of color, or exposing it to influences which operate to destroy it. Many cheese, from the cooking not being sufficiently performed, whereby whey remains in the curd, become mottled or streaked, tallowy-looking, and sometimes nearly white. These defects are aggravated by insufficient heat in the curing-room. The care of the maker is urgently demanded, to be vigilant in the prevention of these causes which have such pernicious effects on the value of the cheese.

RICHNESS.

The demand for richness in quality is less heard of or insisted upon by shippers than several of the other characteristics which constitute a fine cheese, yet fine cheese when ripe are always rich. Many cheese contain all the elements which make richness, yet when tried seem deficient in that quality. Such cheese are often erroneously suspected of being skimmed. Poor, corky cheese are often known to contain all the cream belonging to the milk from which they were made. This seeming lack of richness arises in some cases from too much stirring and cooking, in others from over-salting, and, also, frequently from the fact that the curds are salted before the necessary change has been sufficiently developed, when the curd assumes that soft, mellow feel which accurately indicates the proper time for salting. The amount of salt is easily ascertainable, and there is no excuse for errors in over-salting or under-salting. The proper time at which to salt requires vigilant attention and keen perception; and a rich, as well as a solid cheese, is the reward of those whose skill is competent to decide that proper moment.

TASTE.

Amongst the majority of those engaged in the cheese trade the practice of tasting the cheese inspected is rather exceptional. Still an absolutely accurate estimate of the qualities cannot be obtained until the cheese is tasted. Several faults can only be detected by the taste, and as this is the ultimate sense by which the consumer gives his veto or approval, it cannot be discarded as of small account from the list of qualities which make up excellence. Mildness in taste is one of the most desirable qualities, the purity of milk, care in manipulation, aeration of curd in hot weather, all contribute to give it the mild taste, pure flavor and keeping qualities which are so desirable. Too much stress cannot be laid on the condition of the milk. Badly kept milk is the fruitful source of the tainted, off-flavored, bitterish, sourish, mussy-surfaced goods that are too plentiful; this, combined with careless scalding, liberates part of the butter, making the cheese rancid. Too much or impure rennet has a bad effect on both taste and flavor.

SHAPE.

It is sometimes said that a good cheese cannot be a bad shape. This is far from being sound advice. For shape has a very material effect on the sale of cheese. Every point which contributes in enhancing the price is worthy of attentive care on the part of the maker. The demand is greatest for Cheddar-shaped—cheese ten inches deep and fifteen wide. There is also considerable demand for smaller sizes in the same proportions, also for thin, flat shapes, five deep and twelve to fifteen inches wide. These requirements ought to be ministered to as a valuable auxiliary to increase of consumption at home as well as abroad, for many in town and country would be induced to buy a whole cheese of these smaller sizes, in lieu of a few pounds, were they offered in this more acceptable and convenient form. Factories everywhere should keep on hand some of their finest to supply the wants of patrons; in some factories where this has been done cheese consumption has increased tenfold. In other factories a narrow, hide-bound policy of restriction pervades the management, which discourages consumers from enquiry for a supply of this food at the fountain head. The making of a few thin or small cheese occasionally, which are easily cut into quarters, or a regular supply of Wiltshire shapes, would tend to increase consumption.

APPEARANCE.

A handsome and neat appearance has much to do in effecting the sale of every commodity. This is especially applicable to cheese. A bright, uniform array on the shelves, of clean, handsome and well-kept cheese attracts the buyer's attention at once, and creates a much stronger desire in him to handle such goods; hence it becomes important to have the cheese attractive in appearance. This is not confined to any particular shape or style. Neatness and a bright blooming surface free from odors of ill-smelling grease, cracks, skippers, mould or mushiness should characterize the handiwork of every cheesemaker. It would open the eyes of many makers and be a most valuable lesson for them, to spend a few days during June and July on the docks in New York, and take note of the appearance of the various factories as they are turned out of the boxes, examined and passed upon by experts, as all cheese sold there are. There, week after week, some factories have rejections, and there, year after year, some factories have no rejections. This is the elevated plane to reach, and to which the aspiration of every cheese-maker should be directed. It is an ambition laudable in itself and worthy of their best efforts to achieve.

MORE VARIETIES DEMANDED.

Considering the vast amount of cheese which is now produced in America, it is remarkable that there are so few varieties made. Almost the entire production being of the Cheddar variety, formed into deeper or thinner shapes. This no doubt arises from the fact that the Cheddar is the most systematic method of cheese-making, and better adapted to ensure uniformity of quality. But, although all the Cheddar cheese produced were of the finest quality, there exists among consumers many varieties of taste which call for corresponding cheese product. And this want is one which seems specially to demand the aid of such associations to exist in Canada which are under the guidance and control of your leading practical dairymen, aided by the cheese buyers and fostered by the Legislature. The

associations under such guidance should lead the way and acquire from the best sources the practical knowledge necessary to transplant, equip and set in operation the production of the varieties that may be deemed best, such as the English "Leicesters," "Gloucesters," "Wilts," "Stiltons," "Cheshires," or the Continental "Edams," "Gruyere," "Camembert," "Rocheport" and "Gouda."

There was imported into New York alone during the past year three million eight hundred thousand pounds of Gruyere cheese, at about twenty-one cents per pound; one hundred and fifty thousand pounds of Roquefort, at thirty to thirty-three cents per pound, and fifteen thousand cases of Edams at twenty-two cents per pound, and Camembert sells at fifty-five cents per pound. Undoubtedly all the ordinary kinds can be made here, and most probably these high-priced, fancy varieties also, and it is certain that a gradually increasing demand would arise from the introduction of these varieties. Circumstances existing in Canada favor such an experiment under the auspices of your Association. Several varieties could be made simultaneously at the same factory, and the interest which such enterprise would evoke would be an impulse and important aid in pushing the sale of these rare varieties upon the markets. One competent man sent to England and another to the continent of Europe might, in one season, secure a practical knowledge necessary to ensure success.

THE PROTECTION NEEDED.

While the dairy interest does not ask the crutch of protection to lean upon, or to see that interest supported at the expense of kindred industries, yet there is a sense in which protection (in the States at least) is most urgently required. I mean protection from the schemes of the Oleomargarine Lard Cheese, Oil and Butterine Brigade, who are palming off their polluted compounds as genuine butter and cheese, changing the names to evade the laws. "Enriched" cheese or butter is now the soubriquet applied to these adulterations. And surely if the law can prevent or punish uttering base coin, it is no less imperative that those who tamper with the health of the public, and at the same time rob it, should be made amenable to the laws against frauds. Immense quantities of these compounds are foisted upon the market, and during last summer they completely demoralized the butter trade in New York.

COMBINATIONS.

The success which has attended a number of the combination factories in western New York points to the benefits that may accrue from active and intelligent superintendence under one competent head; the power of selecting makers, overseeing and advising them on every point, so as to ensure a uniformity in shape, size, color, texture and appearance, this enhances their value in the market, and certainly has also advanced their intrinsic merit above the average of isolated factories under separate control. These combinations have run for many years with great success, and have reduced the number of inferior and faulty cheese to very small proportions, and more nearly approached the desired uniformity throughout the season. The supervision of a number of factories by one competent head, even although not owned by one person, could be made to subserve the same ends and promote general improvement.

It may not be much out of place here to refer to a meeting which took place, January 15th, at Ayr, in Scotland, to form a

Scottish Dairy Association. There leading farmers, dairymen and merchants discussed the best means by which to improve the quality of Scotch cheese. The success of Canadian cheese in competing with Scottish Cheddar in the English markets was spoken of with signs of alarm. And the means that were suggested to maintain their superiority consists in calling to their aid some eminent scientist to instruct them how to effect the desired improvement. It may be possible to find such a man, but I have never known a good cheese-maker who was also a competent chemist, nor have I ever known a good cheese-maker who acquired his practical skill from the teachings of science. And every scientist who has attempted cheese-making has been compelled to adopt the experience gained by practical instruction as the actual basis of their ultimate success. Therefore the few first-class dairies that already exist there are a much safer and surer centre for diffusing the needed illumination into the minds of the Scotch cheese-makers. In Scotland, and in America also, pure milk received in good condition, and manipulated as is now done in many factories and salted when the proper degree of change has been acquired by the curd, will make cheese neither sour, hard, weak, or soft. But they will possess solidity and fine flavor, and be rich, mellow and mild when fully ripe, and may be classed amongst the most delicious, wholesome and nutritious foods of mankind.

PRINCE EDWARD ISLAND.

(Special Correspondence of the DAIRYMAN.)

CHARLOTTETOWN, P.E.I., August, 1884.

This is essentially an agricultural country, and so is recognized as such by the people here. There is no expectation of much development in any other line, but rather a looking forward to a large future in this foundation industry.

Certainly, if natural advantages are going to make the selection, the people of this Province will till the soil, and supply food to other workers engaged in different pursuits.

At the present moment the interest that is fast growing in dairying is being shared in by the farmers here. A dairymen's association was organized this week, and begins with much promise. The Lieut. Governor, whose term of office just expired, was elected President of the Association, and the Hon. Donald Ferguson, Provincial Treasurer, is one of three Vice-Presidents. Both of these gentlemen are partial to this branch of farming. Lieut. Governor Haviland has made prominent the industry in all of his addresses at the Annual Exhibitions. His election at the close of his gubernatorial term attests at once his popularity, and an appreciation of his interest in the subject. The Hon. Donald Ferguson took the Dominion prize for butter at the Halifax Exhibition, in 1881, and he is unusually well informed in general dairy matters, as well as being versed in scientific methods of dairy work.

The Secretary of the Association is Mr. R. K. Brace, a dealer in this city to whose enterprise and energy it is acknowledged that the success of the recent movement

due. Mr. Brace has devoted about three years to the introduction of improved methods in dairying, and his efforts, as usual, were for some time thankless. The work he is doing is beginning to be appreciated now, and, it is to be hoped, soon to be rewarded by complete success.

Assistance in organizing was rendered by two outsiders. They were the Rev. A. C. Macdonald, President of the recently-formed Nova Scotia Association, and the writer. Our help was warmly received by the residents interested. The Rev. Mr. Macdonald is doing a noble and disinterested work down here by the sea. Worlds are feeble to express the character of his self-sacrificing and persistent endeavors to accomplish what is no child's task—that of stirring up his people to an appreciation of the need for making progress. He began where it is said charity should begin, and he has proved that his charity does not end at the same place. After his success in Nova Scotia, he is giving his services to the Island, and offers assistance to New Brunswick; and he is the man to carry out his hope of a Maritime Union on this unpolitical, but none the less important, line. His heart is too big for even three provinces to fill, and it is to be hoped he will be called some day to make acquaintance with western dairymen, where the writer prophesies his popularity and usefulness in inspiring enthusiasm in this work to which he is devoting himself, as an incidental to the higher mission of a minister of the gospel. The organization here is based upon that of Nova Scotia, which is in some respects a model one, changed only to meet the local conditions. It is intended to have branch associations all over the Island, where meetings will be held frequently, say monthly, or oftener, for farmers to discuss dairy questions among themselves. Branches have already been formed.

While the Islanders are an intelligent and industrious people there is much room for improvement in their methods, and this Association will be the most likely means of bringing it about. With the exception of six cheese factories all the butter and cheese is made in private dairies. In the latter there has been some improvement during the past few years, but the change may be expected to be greater in the immediate future than in the past.

The cheese factories have not been very profitable, and do not promise to increase very much, at least at present. The reason given by Mr. Ferguson at the convention is that prices usually obtainable for butter in the market here are such that it pays better to make butter than to sell the milk at the factory at a price at which Ontario and Quebec farmers seem to be able to supply it. Another reason given is that the farmers when selling all their milk cannot raise their calves, and, consequently, there is a difficulty of raising stock enough to keep up their lands.

At one factory which I visited the maker said that the usual supply of milk is falling off seriously this year. The above reasons were admitted, but it was claimed that the cows are not giving as much milk as they ought, owing to their not having been well enough fed through the winter. There was too much feeding on straw alone.

It is doubtful if the land would bear heavy cheese production, except under most skilful method of production. The soil is not deep and the heavy export of products in the past has further reduced it. Much use of "mussel mud" has been made, under the impression that it was a full fer-

tilizer. Confidence in it as such is on the wane. Some who have used it once cannot be induced to try it again. It is claimed by an intelligent breeder here to be only a stimulant, and hurtful, except when used with manure. It would seem to be in part a stimulant, and, so far, of false promise, as stimulants usually are.

If it be true that nature has locked up plant food in the soil in a way that, in ordinary course, it can but slowly be availed of, the provision is a safeguard against disaster. When the soluble elements have been withdrawn the soil fails to respond, and the husbandman is taught the necessity of putting back what was taken. The reserve of locked-up plant-food is then of great value, and can be moderately used to lessen the burden of making up for years of past extravagance. Here it may be advisable to use a stimulant in moderation, that is, along with the supply of actual plant-food, in manure. Such use would be admissible, but, as a stiff and effective stimulant used alone, its use must be to discount future prosperity too heavily for intelligent cultivators to do. Here, as in every other case in nature, it is unwise to use a stimulant to actually rob nature's kindly-provided reserve. Farmers of P. E. I. will do well to be cautious; and perhaps caution is in order for farmers elsewhere, who buy so-called artificial fertilizers and let go to waste actual barnyard manure. Let our agricultural friends of the Island give us their experience and opinions in regard to this fertilizer.

There is some complaint about the effect upon crops of the long spell of rainy weather in July. The hay crop will be light, owing to the late spring; but the grain does not seem to have suffered much, at least in the middle part of the province. The land in this part is rolling. Indeed, for twenty miles along the Island, east to west, it is a succession of hill ranges, the ranges running across the Island, from coast to coast, north and south. Here the land is good, and the crops promising. There seems not a foot of ground that cannot be brought under cultivation. The ground is more level towards each end of the Island. Altogether, the people are to be congratulated upon the promising character of the whole country, in view of the possibility of making it, by intelligent method, a veritable and beautiful garden, not of Eden, but of happy agriculturists. This certainly may be made a delightful spot, where honest toil and simple pleasures may combine to content, and where the worry of rush and the misery of want need not be known.

The island character of the province, which adds to its charm and advantages in summer, is practical isolation in winter, and the chief drawback.

From one of the advantages of summer, the Island is likely to profit more and more every year. Not a little of the modern demand for summer recreation, change and rest ought to satisfy itself in the charming beauty of the scenery here, the rustic quiet of the life, and the airy freshness of the climate. The Island is easy of access, where one's vacation extends into the weeks, and there is choice from several lines of travel, any one of which has its peculiar and enjoyable features. There is already demand for increased hotel accommodation, and the supply is sure to follow. Not being a tourist, the writer could not make a stay at any of these places, but he visited Rustico Beach a few hours, where, besides having a glorious bath, he joined in a game of croquet that included among the players a premier of another Province and a member of Parliament.

A feature of the Island is the railway, with its narrow gauge track and small cars, and, above all, the number and frequency of its curves, whose only necessity can be to afford a remarkable illustration of the crookedness that can be developed by contractors and politicians. If ever time with this people becomes so important as it is in places elsewhere, it will be found profitable to straighten out this road. After a little increase of traffic it may pay to do this, if only to shorten train hours and save wear and tear of rolling stock. Meantime it will serve a purpose in profitable instruction to the resident, and as an interesting study and novelty for the tourist.

Potatoes and root crops generally are easily raised on the Island. The prices obtained for these are usually low from a Western standpoint, for potatoes, say, twelve cents and upwards per bushel. There are eight or nine starch factories in the Province, which consume a large quantity of potatoes. They are considered a desirable industry, but would be thought more of if the starch market were stronger and more certain. Germany is a competitor, and a failure there of the potato crop would create a boom in the tuber here.

There are two ways of reaching the Island: One may take the I. C. R., from Quebec or St. John to Pt. de Chene (Shediac), or from Halifax to Pictou, connecting at either point with a steamer of the P. E. I. Steamship Co. The trip across is just long enough to be restful and very enjoyable. The other way is by steamer, from Quebec, or Boston. From Quebec to Charlottetown in midsummer is a most pleasant water trip.

WOODSTOCK COLLEGE.

Among the leading educational institutions of the West, Woodstock College, Woodstock, Ont., holds a high position. It provides thorough culture for both ladies and gentlemen in all the branches of a liberal education, and has also connected with it one of the most fully-equipped and thorough Business Colleges of Ontario. The Principal, N. Wolverson, B.A., will be pleased to furnish full information to any.

NEW PROVINCIAL ASSOCIATIONS.

As an evidence of progress, mention may be made of the successful formation of two Provincial Dairymen's Associations since April. Nova Scotia with much enthusiasm led off, and her example has been followed by the small but wide-awake Island Province. New Brunswick is not asleep, she is only waiting till something moves her. The following, from the *Charlottetown Examiner* will have an interest to other Provinces:—

The Dairymen's Association of Prince Edward Island was organized Wednesday in the upper Hall of the Y. M. C. A. Building. The meeting was not a large one, but it was composed of leading men, enthusiastic in the promotion of farming. The Association was honored and assisted by the presence of the Rev. A. C. McDonald and Mr. W. H. Lynch.

A code of bye-laws was adopted; and it was explained that the Association will not confine its interest and enquiries solely to the making of butter and cheese, but will promote, as far as possible, all branches of farm products.

The officers elected were,—His Honor, Lieut-Governor Haviland, President.

Hon. Donald Ferguson, of Queen's County, Vice-President.

Hon. Alex. Laird, of Prince County,
Vice-President.

John Hamilton, Esq., of King's County,
Vice-President.

Wm. Mutch, Esq., Treasurer.

R. K. Brace, Secretary.

Executive Committee—Charles C. Gardner, Henry Beer, David P. Irving, Fenton T. Newbery and Henry Clark, Esqs., all of Queen's County; Frederick Bovyer, Cyrus Shaw, John Cowan, George F. Owen, and Ronald McCormick, Esqs., all of King's County; George Compton, D. H. McDonald, Solman Schurman, Peter McNutt and William Mills, Esqs., all of Prince County.

The Rev. A. C. McDonald, at the evening session of the Association, read an essay on "The Cow—Her care and management, and her products." This important subject was adorned by the rev. gentleman with some of the very finest flowers of rhetoric and fancy, while several very important practical ideas were advanced.

Mr. Lynch delivered a capital address, which was heard with great attention. The main points of the discourse were: (1) that farmers should, by careful and skilful manipulation of the milk and cream, improve the quality of their butter, and so increase its consumption and price, and (2) that they should, by obtaining better cows and taking greater care of them, reduce the cost at which butter is produced.

The essay of Mr. McDonald will appear in *The Examiner* in the course of a few days; and we hope also to be able to lay before our readers a summary of Mr. Lynch's excellent address.

ARMOW CREAMERY.

For some time farmers in Kincardine township, in the neighborhood of Armow, were of opinion that a benefit would be conferred on the neighborhood by the establishment of a butter or cheese factory. After extensive enquiries among practical men it was decided to form a joint stock company, and at once proceed to erect and equip a butter factory. The factory is now in full operation, and at times as much as 400 lbs. of butter are made in one day. The building is situated on the side of a rising piece of ground and in close proximity to a never-failing and powerful spring of water. The factory is 24 by 30 feet in size, and has 10 feet stone walls, the superstructure being frame. The cream is gathered in cans so constructed as to preclude the possibility of dust reaching the inside. On reaching the factory it is emptied into vats where by means of cold water constantly circulating round the cream, the proper temperature is attained. After standing for about twenty-four hours the cream is conveyed by means of piping to a large Blanchard cylindrical churn. The churn is operated by steam power, and the length of time occupied in agitating the cream is about two hours. The capacity of the churn is 100 gallons of cream. At present there are four vats in the factory, and, if business demands others, there is ample room for the placing of one or two more.

The apartment in which the butter is made is 15 by 24 feet, and off this is the cellar, of like size. A brick flooring will be put in at once, and this, with the manner in which the walls are constructed, a vacuum being left between the stone and wooden sheeting, keeps the temperature quite cool.

All the appliances are of the latest approved patterns. The piping is laid in such a manner as to be very convenient for

washing the utensils, vats, &c., with either hot or cold water. It is in a butter factory that cleanliness must be observed in every detail, and judging from appearances, this is done in the Armow factory. The butter manufactured is of first-class quality and readily brings about five cents more per pound than what is known as store butter. About \$1,500 have been expended in connection with the factory. The salt used is imported from England, and is held by the butter maker to be a very superior article. The patrons of butter factories find it necessary to use cans specially adapted for being placed in cold water so as to bring the milk down to a low temperature as soon as possible.—*Kincardine Reporter*.

ADVICE TO FAIR ORGANIZERS.

Let me entreat the officers and directors, in the name of honesty, decency and morality, and in behalf of the future character of American farmers, to stop objectional practices. Hereafter so conduct the fairs that you can safely trust your sons and daughters alone upon the grounds without fear of contamination. I wish you could see it best to shut off the grounds all horse racing, chariot racing, dog fighting, hurdle racing, and everything degrading. Make the fair grounds neat, pleasant and inviting, the fair highly refining, and so educational that its tendency shall be to make your sons and daughters better men and women and better farmers and farmers' wives. A few fairs are conducted without any of these shameful associations, and they are among the most successful of any, the New York State Fair standing proudly at the front.

Lastly, I appeal to the women, and especially to the mothers of the country. You have the law and influence and right on your side, and with the will, you can not, must not, fail; the purity of these loved ones is at stake. See to it that the fairs are renovated and purified; see to it that your husbands attend the annual meetings this winter, and that good men are elected officers who will not allow them to be polluted. The fairs are a wonderful power in the land; let us have them so conducted that they shall be a power only for good.—*Moore's Rural New Yorker*.

DAIRYING IN P. E. ISLAND.

COMMENDABLE PROGRESS.

The interest in dairying, which has for some years been gradually rising in this Province, has at last arrived at such a height that a Dairyman's Association has been successfully organized. We congratulate the Province; and trust that, with co-operative effort, our farmers will go on improving their products more intelligently, more regularly, and more rapidly than heretofore. Our milch cows, with few exceptions, are still very far behind the age.—we have not a dozen Jerseys and not a single Holstein; far too little care is taken in breeding and feeding; and, while quite a number of farmers' wives pursue the best-known methods of making butter and cheese, much the larger proportion go on in the old bad way. The influence of the Dairyman's Association will, no doubt, be beneficially exerted; and we shall soon see an improvement.

It is very pleasing to see our esteemed Lieutenant-Governor personally taking an active interest in matters agricultural—matters which, from a material point of

view, are to this Province of the very highest importance; and we hope he will long remain at the head of the Dairyman's Association. The Hon. Donald Ferguson—one of the Vice-Presidents of the Association—is also setting an example which his fellow-politicians would do well to imitate.

The Province owes a great deal to Mr. Lynch and to the Rev. A. C. McDonald for what they have done in the promotion of our dairy interests. The different Provinces might help each other forward to a much greater extent than they do, if there were more co-operation on the part of their respective peoples; and, with the facilities for inter-communication that we now have, such co-operation can easily be obtained. We hope to see more of it.—*Charlottetown Examiner*.

DIRTY CHEESE FACTORIES.

By a late Act of Parliament no cheese factory or slaughter house can be established without a special license from the Inspector of the Board of Health in each municipality. It might be supposed in case of creameries and cheese factories that no such license was necessary on the score of their becoming a public nuisance in a sanitary point of view. But, according to the report of Mr. Henry Anderson, the Health inspector for the township of Westminster, he only granted one cheese factory license, as yet, in that municipality. In his tour of inspection it is reported the factories were found in a filthy condition, and pools of stenchy whey pervaded the premises, and this unhealthy odor spread over the neighborhood in the vicinity of the factories. So intense was the smell in one case that the Inspector became ill from it. It would be bad enough to find such a state of things under any condition, but particularly in connection with the manufacture of butter and cheese. To make a good article of this kind everything must be scrupulously clean, and it would be supposed that not only in a sanitary point of view, but financially and for the good name of the factory, clean premises would be kept.—*London Free Press*.

HOW TO REAR CHILDREN.

Treat them kindly.

Don't preach politeness and propriety to them and violate their laws yourself. In other words, let the example you set them be a good one.

Never quarrel in their presence. If you want to quarrel wait until the children are gone to bed. Then they will not see you, and perhaps by that time you may not want to quarrel.

Never speak flippantly of neighbors before children. They may meet the neighbor's children and have a talk about it.

Teach them to think the little boy in rags has a heart in him in spite of the rags—and a stomach, too.

Teach them as they grow older that a respectful demeanor to others, a gentle tone of voice, a kind disposition, a generous nature, an honest purpose and an industrious mind, are better than anything else on earth. Teach them these things, and self-reliance and intelligence and capability will come of themselves. Teach them these things I say, and your boys and girls will grow up to be noble men and women.

NOTICES OF THE PRESS.

The *Canadian Dairyman and Farmer* is the name of a new monthly devoted chiefly to the Dairying interest. The design on the cover is interesting, showing, as it does, many phases of the dairy industry; the inside contains, besides original articles, carefully selected reading matter, all of the greatest interest to farmers in general, and dairymen in particular.—*Richmond (Q.) Times*.

It is just what is needed in the interest of dairying. The dairying interest is an important one and must be developed. The *Canadian Dairyman* does its best to fill the gap.—*Acton Free Press*.

This new candidate for public favor makes a neat appearance, and promises to be a very useful periodical, while the low price at which it is issued places it within the reach of every one.—*Rural Canadian*.

It is a bright 16-page monthly, and its columns are filled with valuable original matter and excellent selections. It should meet with success and an abundance of it.—*City and Country, Columbus, O.*

There is undoubtedly a good field for such a journal in this Province, and we hope it will be well patronized.—*Cowansville Observer*.

It is a first-class publication, and should receive a liberal and substantial support.—*Halton News*.

Viewing the growing importance of the Canadian Dairy, we welcome the appearance of the *Canadian Dairyman* with pleasure, and wish it success in the attainment of its praiseworthy object.—*The News and Ottawa Valley Advocate*.

The *Canadian Dairyman* is just what is needed in the interest of dairying. Canada is a big country, and is growing fast. The dairying interest is an important one and must be developed. This journal fills the gap.—*Oshawa Vindicator*.

The important position now occupied by the dairy interest in Canada demands that it should be represented by an able and well conducted journal. This want is admirably supplied by the *Dairyman*.—*Watford, (Ont.) Advocate-Adviser*.

The only wonder to us is that it was not started before. Ample room for its publication in this Dominion of ours. We welcome the *Canadian Dairyman* on our exchange list.—*P. E. Island Agriculturist*.

Cheese-making and kindred interests are those about which the farmer is continually learning, and the *Dairyman* promises to tell him a good many things which are not now generally known.—*Belleville, Ontario*.

The rapid growth of the dairying interest in Canada would seem to indicate the necessity for an organ in that interest.—*Prescott Telegraph and Almonte Times*.

The immense development in the production and exportation of cheese and butter has led the publishers to issue a monthly, devoted entirely to this interest. We welcome this monthly to our exchange table.—*Calgary, (N. W. T.) Herald*.

As it is the only journal of the kind in the Dominion, it has plenty of elbow-room, which, judging from appearances, it is bound to use to the advantage of all concerned.—*Montreal Witness*.

If subsequent numbers prove to be so well conducted as the initial number, it

looks as if its success could not be by any means doubtful.—*Belleville Ontario*.

A 16-page monthly, well filled with original and selected matter.—*Western Farmer Madison, Wis.*

It is neatly printed on good paper, and contains a vast amount of useful reading matter for dairymen and farmers.—*Live-stock Indicator, Kansas City*.

The first number is a creditable one, and the *Dairyman* ought to be supported by those interested in the subjects it has taken under its special guardianship.—*Montreal Post*.

This number contains much interesting matter with regard to butter, cheese, etc., the articles being well selected.—*Montreal Gazette*.

It is a neat pamphlet of 16 pages, well got up, and contains a great deal of useful information for the farmer, whose interest it is devoted to. We wish the *Dairyman* every success, and trust it will meet with the encouragement it deserves.—*Orms town Courier*.

In the first number (for August) now before us, are a large number of well written and pithy articles on many of these subjects, and from the large amount of information, instruction, as well as amusement, conveyed in these we have no doubt the journal will prove very valuable to all engaged in farming.—*Sherbrooke Examiner*.

We have received from the Publishers their first number of the CANADIAN DAIRYMAN AND FARMER. The growing importance of the Canadian dairy industry of this country, and this effective medium through which knowledge may be imparted, will probably make this paper a welcome publication.—*Montreal Star*.

RICHMOND, P. Q., July 30, 1884.

No. 1, Vol. I., of *Canadian Dairyman* for August 1884, just received, thanks. I have carefully read its contents, including Ads, and I am of the opinion that it is the best Farmers' and Dairymen's journal ever issued. I wish you, as you well deserve, abundant success.

Truly,

J. H. GRAHAM.

PORT HOPE, ONT., 8 Aug., 1884.

DEAR SIR,—I received your sample copy, No. 1 of the *Canadian Dairyman and Farmer*, which, upon perusal, I find to be a very creditable publication.

Your's very truly,

ARTHUR T. H. WILLIAMS.

The following suggestions in regard to packing butter may prove beneficial to those interested. The style of the package has more to do with the sale than most shippers are aware of. The tubs should be well soaked in brine before filling, the butter packed solidly, and filled within half an inch of the top of the tub. Cover the top with a piece of new bleached cotton soaked in brine, and tucked neatly down at the edge. In packing butter and getting it ready for market, neatness is indispensable, and, besides that, it pays. Never pack two colours in the same package. Light coloured or streaked butter always sells hard and at low prices. Use the best fine salt you can get. Tare your tubs correctly.

We (*Brockville Times*) had a visit to-day from Mr. John Heapy, a very prominent Liverpool cheese buyer, who came here to arrange for a representative, and has secured Mr. A. A. Davis. These two gentlemen visited some of the factories within a day or two and at our urgent solicitation he addressed a few words to the cheese makers of this district as follows: Gentlemen,—In company with Mr. Davis, I have visited your most important cheese factories, and am well pleased with the cleanliness and care taken in the manufacture of this important product. I would respectfully impress on the makers of cheese, that they make them as close and white as possible. Many cheese, though not artificially colored, are quite straw colored when landed in Liverpool. These goods do not command near as high a price under the tryer as the "bleached white." This latter is a rich white article and very saleable, and if manufactured here would give this district great prominence, and would no doubt cause higher prices. The great drawback to many cheese is their porous character. A holey cheese never sells up to a close well-made article. In a dull market they are unsaleable. In the end the makers have to pay for these irregularities. There need be no fear of more cheese being made than required. Our people are fond of it, and if sold at easy rates can absorb almost an unlimited quantity.

A new Cheese Factory building has been erected at Paradise, N. S., on the site of the one lately burned. It is expected to be in operation on Monday next. A new company has been formed, stock paid in, and a new building run up within a fortnight or three weeks.—*Bridgeton, N. S.*

The Gladstone correspondent of the *St. Thomas Journal* writes: The cheese factories in this vicinity are doing a flourishing business, but we regret that they still continue the practice of manufacturing cheese on the Sabbath day.

The Dunkeld cheese factory, recently destroyed by fire, is being rebuilt.

A butter factory is about to be started at Sussex N. B. Col. E. B. Beer has taken considerable interest in the work.

A NEW DESIRE AND PURPOSE.

A man who is upright in heart often finds it hard to maintain uprightness in life.

Twenty years ago, a gentleman visited the Massachusetts Reform School, and selected a boy to take into his family. The one chosen was a wild, wiry fellow, who had been sent there from the Boston streets. He quietly accompanied the gentleman, until they arrived in Boston. While on the way to a depot, his old impulse to evil returned, and he suddenly darted from the gentleman's side and ran up a side street full of tenement houses, the abode of crime and dissipation. The gentleman, being fleet of foot, soon colared the boy and forced him to walk to the cars.

Unpromising as was the beginning of the effort to make a good man of a bad boy, the gentleman determined to persevere.

After a few weeks, his kindness won the boy's heart. Love for a good man took the place of his evil desires. The expulsive and impulsive power of a new affection caused him to slough off his wild influences and gave him a new purpose. Then he began to show himself tractable, obliging, steady, and gifted with unusual force of will.

The love of a good person is a transforming power. It creates a desire for good; the desire inspires a right purpose. One of the most noble things a good person can do is to often allow a weak person to share their sympathy and society.

The boy did not surprise his patron by telling him one day that he would like to go to school. He had been expecting it, and had formed his plans. Instead of sending him to an academy and paying his expenses there, he helped him to obtain work, by which he paid his own bills.

He took a special course at a neighboring academy, and as soon as he had completed it, announced that he intended to be a lawyer. His foster-father, staggered at this rapid stride, tried to dissuade him from his purpose, as he thought him unfitted for that profession. But the boy, with characteristic determination, persisted.

He entered a lawyer's office, earned a little money, and after a year's study went West.

He, who a few years ago was a wild boy, trying to break away from all good influences, is to-day one of the most successful lawyers in Minnesota, and, better than that, a man whose influence in society is elevating, Christian and helpful to others.

Is it not thus that Christ transforms life by leading us to love Him who is holy, and bringing a new purpose out of our new affection?—*Youth's Companion*.

ELECTRIC WONDERS OF THE AGE.

Hon. S. S. Cox, in the annual address delivered before the Indiana Asbury University, at Greencastle, said:

"The electric monograph transmits messages in the original hand-writing. The hektograph multiplies your epistles; the telephone enables people to make contracts through an orifice; but as there is no witness, photography comes in and records the shadow of the sound by curves in vowels and consonants!

"Electricity is an element elusive and subtle, yet it is stored in a box and imprisoned in a metal to be used at pleasure for portraiture, sound, light, or power. I have seen an organ played in Berlin by electricity, but this is simple compared with other experiments. Is it not a marvel that we can telegraph from a moving railroad car or the speeding steamship? A California photographer obtains six photographs in one leap of a clown in six different positions. He catches a horse on the gallop, a rabbit on a run, and a bird on the wing. By means of a wire, a circular saw or a locomotive may be—nay, has been—run miles distant from its source of force. Electricity is born of the sun. It may be converted back to its source, so that when one talks by telephone he may see his distant colloquist. It will not be strange if the polyscope illuminates the animal organism, rendering the body transparent. The vast current of liquid force which we call electricity is condensed in boxes like desiccated meats, or spread over continents to convey intelligence. Man can never overdraw from this vast, bankruptless depository of nature.

According to the Report of the Bureau of Industries for August a good harvest of grain crops in Ontario seems to be well assured. The fall wheat gives an average yield of 21½ bushels and the spring wheat of 18½ bushels per acre,—the average of both being 20 bushels,—and the aggregate production exceeds that of last year's harvest by 10,360,000 bushels.

The hay crop was injured to some extent by the frosts of the last week in May, and more seriously by the drought of June. The yield is estimated at 3,044,912 tons, or about 1,000,000 tons less than last year. The appearance of the corn crop is not promising, due partly to inferior seed, and partly to the low temperature prevailing throughout June and July. The reports of the root crops are generally favorable. Potatoes are excellent, and mangolds and carrots are fairly good, Turnips made slow growth at first, owing to the dry weather, but the recent rains have been very beneficial. The area in potatoes is 168,862 acres; in mangolds, 18,341 acres; in carrots, 10,980 acres; and in turnips, 104,108 acres. The total area in roots is 302,291 acres, or about 8,500 more than last year.

BRITISH AND CANADIAN DAIRYING.

Before the Economic Science section of the British Association at Montreal Prof. J. P. Sheldon, of the College of Agriculture, Downton, Eng., read a most instructive paper on British and Canadian Agriculture. He referred to the competition between the farmers of the old country and the new, and said it naturally involved fiscal problems which affect already, and in the future will much more affect, the condition of agriculture in both countries. Of the modern and more striking features of this rivalry our fathers had no conception whatever, nor had we a decade and a half ago, but with the older ones we had been familiar for some time before, though even now we do not apprehend the full scope of the influence which they will exert in the future. That the competition will become keener on the part of the new country as well as greater in volume is clearly enough seen, but we cannot foretell the lines on which it will be developed, or the surprises that may be in store for us. In this age of steam and electricity and of multifarious inventions, new and unlooked-for factors are being brought into play, and these involve the adoption of various modifications in farming practice. The twin principles, progress and adaptation, are at work to-day in agriculture as they have not aforesaid been, and nothing even in agriculture is so inevitable as the unforeseen. Of this a striking instance is seen in the transatlantic trade in fresh meat so recently developed, and not less so in that of live animals. I will endeavor to trace out briefly some of the tendencies which are in play now, and indicate the lines which will probably have to be followed in future. Confining my remarks to Canada, I will give statistics relating to the exports of agricultural products:—

Fiscal year ended June 30, 1873.

	Pounds.	Value.
Butter.....	15,208,633	\$2,808,979
Cheese.....	19,483,211	2,280,412

Fiscal year ended June 30, 1883.

	Pounds.	Value.
Butter.....	8,106,447	\$1,705,817
Cheese.....	58,041,357	6,451,870

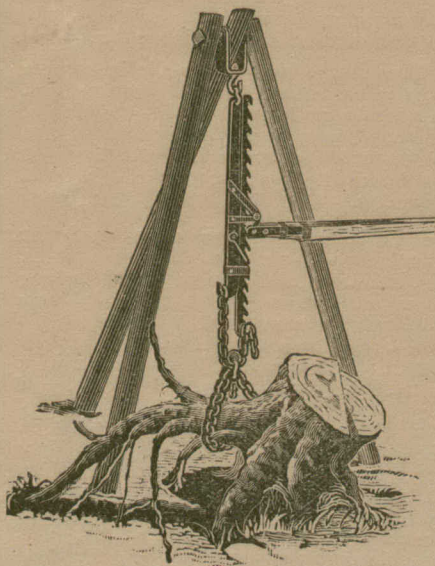
These figures show a large falling off in butter but a much larger proportional increase in cheese, which may be in part accounted for in the superior advantages which cheese affords for transit, as well as its better keeping properties. Canada, in-

deed, has in recent years proved herself capable of producing cheese of very superior quality and condition, her climate being, so far as the great American continent goes, exceptionally well adapted to the pursuit of dairy husbandry. The disparity I have indicated as between cheese and butter, as regards transit and preservation, is one which has no need to exist, for butter can be so made and packed as to travel safely and in good condition to the other side of the world and back again if need be. Canada may produce such butter, and may win a large portion of this self-same trade to herself. The value of Canadian exports, consisting of animals and their produce, for the year ending June 30, 1883, was \$20,284,443, and of other agricultural products, \$22,818,519. The great bulk of these products was sent to England. The demand in that country is developing in Canada the tendency to largely increase the export in animals and their produce. Canada, indeed, will owe much of her future agricultural prosperity to the exports of beef and mutton and dairy products. The Eastern and Maritime provinces of Canada are in the incipient stages of agricultural transition, and will in time develop into stock-raising and dairying countries, though the process may be long in operation; but there can hardly be a doubt that the tendency is a wise one: first, because they are better adapted to these pursuits than to grain raising, and, second, because the North-West Territory is destined to become, at no distant day, the chief granary of Canada, as also, perhaps, of England. Canada, it appeared, has not in recent years been maintaining the volume of her wheat exports, though it is probable that the opening up of the North-West by the C. P. R. will shortly enable her to greatly increase them if she thinks well to do so. So far, however, as the production of wheat is concerned in the British foreign possessions, a new competitor and a most powerful, and, therefore, dangerous one has recently entered the lists, and Canada may ere long find herself seriously handicapped by India. The exports of wheat from India to England is very rapidly increasing in volume. These exports have risen thus quickly without causing any appreciable rise in the price of wheat in the country. It is probable indeed that the price will this year touch a lower relative point than it ever did, and it must be admitted that the climate and soil of India are eminently suited to the growth of wheat of fair quality. The probability now is that with the extension of the railroad system of our Eastern Empire, we may expect as a direct and rapid result of the competition of that vast country, where cheap labor abounds, and where the cost of living is very low to the working classes, a still further reduction in the price of breadstuffs. The question is one of surpassing importance to the well-being of the farmers of the eastern provinces of the Dominion. I may therefore draw the attention of Canadian farmers to the urgent expedience of extending their operations in stock raising and dairy farming. It will be well for them to copy the best practices of the old country as far as may be, viz., crop rotations made subsidiary to stock raising, stock fattening and the production of milk; and in order to effect this the conservation of manure, thorough tilling of the soil and the employment of purchased feeding stuffs and fertilizers, will occupy a prominent position in farmers' programmes. It is competent for

me to record, and as a result of personal investigation, my opinion that the Eastern and Maritime provinces in many parts of them are well adapted to the growth of roots and green crops as well as of hay and straw for forage. These crops supply that foundation for successful stock raising and dairying; and by stock raising I do not mean cattle only but all sorts of animals which go to the efficient equipment of modern farms. The speaker then referred to the position of the farmers in Britain. Seven wet years have left the British farmers poor, which means that they are badly equipped to meet the competition that swirls around them everywhere to-day, and seven good years, better than we have any reason to expect, are required to restore to them the measure of prosperity which they enjoyed ten years ago. The wonder is that their condition is not far worse than we find it to be, for they have suffered, not from wet seasons only, not alone from inferior quality of products, but from shorter yield, and from the diminished values which were the result of the sharp foreign competition. But the rent-paying farmers of Britain to-day, so far as law is concerned, are placed in a position much more favorable than that of their fathers, for the money which they bury in the soil, in the way of adding to its fertility cannot now be confiscated as it formerly could by rapacious landlords. The Canadian farmer owns the land he farms, and can do what he likes with it. All very well this, when the owner does not bury too large a capital. In the course of time, as land increases in value, the landlord and tenant system will grow up in Canada, and it will be well that it should at the outset be defined on equitable lines. The prospects of British farmers are brightening, and a few good seasons will revive their confidence and replenish their pockets, while a rapidly growing population will maintain the demand for food, no matter what the volume of foreign competition may become. Various means are being taken to inculcate improved practices in husbandry, and sound agricultural knowledge is being imparted to the people. It is in dairy farming, probably, that the greatest need exists for improvement, especially in butter and cheese making, for the need of tuition in these dairy departments seems so far to be perennial to dairy schools, and other means of dairy tuition have already effected great improvement in Ireland, and similar means are being adopted in England and Scotland. Canada, too, may wisely employ similar agencies, for her destiny is to develop into a great butter and cheese as well as a beef and mutton and live-stock exporting country. She ought, indeed, to supply England with no inconsiderable quantity of store cattle for fattening there, and she may do this so long as, by preserving a clean bill of health and by excluding American stock from transit through her territory, she remains out of the list of countries which England has been compelled to schedule on account of diseases. This present immunity from disease among stock is of immense advantage to the farmers of Canada. The needs of the day in England, and probably in Canada, too, in order that agriculture may flourish, are improved practice and greater economy and the adoption of newer and more efficient ideas, along with more of personal supervision on the part of the farmer and his family. The rest will follow as surely as daylight follows darkness."

AN IMPROVED STUMP LIFTER.

The accompanying engraving represents one of the most successful stump and stone lifters that has ever been put upon this market. The patentee and manufacturer is Mr. S. S. Kimball, 577 Craig street, Montreal, who is also the patentee and manufacturer of the Champion Cultivator and the new Champion Horse Hay-fork, which bids fair to become as popular as the two earlier inventions. The Champion stump and stone lifter is capable of doing the work of ten men and six horses, a claim which the inventor has on many occasions put to the test. It is simple in construction, lighter in weight, than any other machine of the same power, and cheaper in price.



It is a racket bar machine with the faults of the old machine overcome, as the bars are cut by an improved process which does not weaken the tooth. The bar can be of any length, as it is made to slide up by the side of the clevis, and not against it, as in other machines. There is also a purchase or "snatch" roll at the foot of the bar which thus doubles the available power. The bar is of the toughest steel, made especially for the purpose, and such a thing as a break in them has not been known in a single case. In fact, the maker guarantees to furnish an extra bar free of cost where such a break is proved. This machine has been made in Canada for three years, and no better proof of its claims can be furnished than that the sales have increased tenfold each year since its introduction.

CUTTING AND CURING CLOVER.

A large per cent. of clover hay around here comes out in the winter more or less injured, it being black and bushy with leaves gone, caused by not having been properly cured. Early cut clover, properly made, makes the best of hay; but if cut late and dried hard in the sun, it is then about the poorest. Clover should be cut earlier in the bloom than any other kinds of grass, as it is usually coarser and sooner turns hard and woody. The secret of properly curing clover is to have it spread out to the sun just as little as possible, or only enough to get the wet out of it. Put it into heaps before it is fairly wilted or within two or three hours after being cut. Let the cocks stand at least two or three days without being touched. Cover with caps if you have them. It may sweat

and begin to heat some, which will dry itself.

The third or fourth day the heaps may be turned over so as to air the bottom, but should not be spread out for hardly an hour to the sun before it goes to the barn. Clover must be cured as much as possible in the shade and in the heaps, and not exposed long to the sun. In this way the leaves will be retained, will hold their green color, and make tender and sweet food for any kind of stock. We nearly spoiled one piece of clover last year by letting it lay in the hot sun too long before raking, when it was brittle and brushy, and a large portion of the leaves fell off, which was the best part to have saved. We never calculate to rake or get in much hay after five o'clock, as we don't like to handle it after it has cooled off and the dew is falling. We believe we can get in more hay in good condition, and better for both man and beast in from 10 to 11 hours a day than many farmers do who drag along 15 or 16 hours a day, raking in the dew and wondering in the winter why it is that their hay comes out so black and smoky. Our farmers have improved very much within the last twenty-five years in several points. Hay is not dried near so much, and is cut earlier. Farmers in this section do not drink near so much cider and rum in the hay field as they used to. Probably not one-fourth as much of either is now used as there was twenty-five years ago, and I am glad to believe their use is growing less every year. Give the men more sleep and less stimulant and they will have more vigor for the next day's work, to make hay only when the sun shines.—S. A. T. in N. E. Homestead.

THE DEADLY TEAPOT.

"While good temperance people are decrying liquor," said one of the leading physicians of the city as he came into his office, eased the information of his previous whereabouts from his slate and tipped back in his easy chair, "they seldom stop to think how much harm is being done by the abuse of a beverage to which many of them are devoted. I just came from attending the case of a five-year-old babe who is ruined for life by the parents indulging it in tea-drinking. The child became very nervous and dyspeptic, and they sent for me. I asked them how much tea the child drank. "About two cups at each meal and several between meals," was the reply. "You see," the doctor continued, "they let the teapot stand on the stove all day. Thus the tannic acid is extracted, which serves to turn the linings of the stomach into leather, and brings on dyspepsia and kindred diseases. Yes, there are hundreds of women, young girls and aged women, and occasionally a man, who have completely ruined their nervous system by the excessive use of common tea. It will be a blessing to mankind when a temperance crusade can spare wind from its attack on alcohol to assail tea. Prominent Christian people and all classes of people are addicted to the habit, and thousands are languishing to-day in consequence. Very excessive use of tobacco acts somewhat in the same way. But I believe the greater general evil lurks in the tea, because it happens to be in favor with the best of people—best as regards popular opinion, but among the worst from a medical point of view."—*Waterbury American*.

The average daily churning of the Teeswater creamery is seven hundred pounds of butter, but one day lately, over nine and nearly ten hundred pounds of butter was made and packed.—*Kincardine Standard*.

THE DE LAVAL SEPARATOR.

BLOOMFIELD, Ont.,
September 3rd, 1884.

Mr. FRANK WILSON,
General Manager De Laval Cream
Separator Company of Canada.

DEAR SIR,—I am running the two De Laval Cream Separators I purchased from thee with perfect satisfaction. One has been in operation fifty and the other about thirty days. They set as close together as the bottoms will let them, and our driving belt drives the intermediate that runs both separators.

One hand can attend them both and the engine easily. I would not attempt to make butter without them. The quality of the butter is pronounced by all as the best they ever used.

L. V. BOWERMAN.

STOCK NOTES.

A number of new milch cows have died in the vicinity of Georgetown of milk fever. The veterinary surgeons advise that cows calving while the pasture is so good should be milked prior to that time for a few days or put on a smaller allowance of food.

A thirteen month calf, belonging to J. H. Magee, West Gwillimbury, is giving a gallon of milk per day.—*Alliston Herald*.

Wellington county editors revel in cow paragraphs. Here are two we clipped from the *Harriston Tribune*: "On the 27th ult. a cow belonging to R. A. Colwell, of the 11th con. West Luther, had three calves—two heifers and one steer. They were all fair sized, well and properly developed, and two are still alive and doing well. The cow is only 4 years old, she had a calf at 2, missed altogether at 3, and more than made up for lost time at four. She is also doing well." The above is from the *Mount Forest Confederate*, and we quite agree with Bro. Benner that it is a "reak of nature;" we are pleased to learn that the interesting mother of "two heifers and one steer" is doing well. It is to be regretted that under the circumstances such an extraordinary strain of stock is not likely to be perpetuated.—*Ex.*

Mr. J. G. V. Field Johnson, manager of the Land Corporation of Canada (limited), left last night for Ontario, for the purpose of purchasing about 50 dairy cows for Kinalmeaky farm, near Headingly.—*Manitoba Free Press*.

A valuable consignment of carefully selected Angus cattle left Glasgow recently for Canada. One of the bulls cost £500.

Mr. Wm. Murdock, of Adelaide, shipped from Strathroy for the Liverpool market a herd of 34 head of cattle, for which he received \$79 per head.

Those visiting Montreal and having dry goods to purchase will do well to call upon the old-established "Colonial House," of Henry Morgan & Co., Victoria Square and St. James st. Morgan & Co.'s are not understood to be the cheapest in town, but they have the reputation of being one of the best.

Questions regarding the care and treatment of cattle will be answered in these columns by a competent veterinary surgeon.

Reader, can you not give the DAIRYMAN a helping hand by recommending it to

those interested in the dairy and inducing them to subscribe? See announcements elsewhere regarding prizes to those who will get subscribers. Our club rates, also, are very liberal. We should be glad to have agents from every large district.

The Messrs. Moody have their well known agriculture works at the upper end of the town, and are commercially the life of the village. Besides these works, there are a large grist mill and a saw mill, all being run by water power, of which there is an exhaustless surplus. A butter factory was started last year, and produced a very marketable quality of butter, but, owing to irregularity in the delivery of milk, the managers have not continued operations this season. One of the Messrs. Moody, who has taken a lively interest in the work, is expected to carry on the business on his own account next Summer, and will no doubt make it successful.—*Terrebonne Cor. Star*.

The cabbage worm has made its appearance in some localities in large numbers. Powdered pyrethrum is said to be a sure, safe and cheap remedy. It is dusted into the center of the plant, mixed with five times its bulk of plaster or flour.—*Ingersoll Chronicle*.

I made this year a more particular examination of samples of low price butter, and I came to the conclusion, after having examined them and taken outside information, that the manufacturers thereof do not intend to defraud the public, but that their butter becomes rancid because it is badly made, owing to the want of knowledge of how to manufacture good butter.

The new dairy establishments started in the Province of Quebec will, I have no doubt contribute to a large extent to bring about the manufacture of first class butter. Our country manufacturers are in want of butter presses for the extraction of the butter-milk, which contains so much caseine; every one knows that the butter becomes rancid when it contains too much of it.

There are three kinds of butter in our district: spring, summer and fall butter. The winter and spring butters which are salted are more apt to become rancid than the summer or fall butters.

As a rule butter which does not contain 80 per cent of butter fat is either bad or of an inferior quality, and I ascertain the fact from the observations made by my Toronto colleague, Dr. Ellis.

"We notice in the *Brampton Times* that our friend Mr. J. C. Snell, of Edmonton, is striking vigorous blows at the over shadowing tree, intemperance, in the vigorous support he is giving to the Scott act. We would that it were so with all our stock men, and in each of the Provinces. We know the Scott act is not a complete remedy, but let us make the best of what we have, and work for more. Let us drive this demon of all vices into his own lair, where, thus placed at bay, he will be the more easily destroyed. The battle of the Scott act is now being fought gallantly in many cities of Ontario. Hopefully we await results."—*Canadian Stock Raiser's Journal*.

Mr. T. D. Millar, cheese merchant, of Ingersoll, will ship to Holland in a few days two mammoth cheeses weighing 630 lbs. each, and six weighing 60 to 65 lbs. each for exhibition at the International Dairy Show to be held in Amsterdam, commencing on the 3rd of August and open to the world. These cheeses will be colored, and are now being manufactured by the Burnside cheese factory in North Dorchester.—*Tilsonburg Observer*.

To WIN THE PRIZE Set to Work at once for the Canadian Dairyman!

Anyone sending us

FOUR SUBSCRIBERS

with \$2 will get a Dairy Thermometer or four packets of Assorted Seeds for fall sowing, or a small Boquet of Imported Dried Flowers, prepared by a new German process so that the colors are perfectly preserved and will last two or three years—mailed free in each case.

Anyone sending

TEN SUBSCRIBERS

with \$5 will get a copy of one of the following books:—"Guenon on Milch Cows," "Keeping the Cow Profitably" (illustrated), "Thompson's Food of Animals," or "Waring's Elements of Agriculture," or, if preferred, 10 packets of choice Seeds for fall sowing, or a large boquet of the new German-process dried flowers, an elegant adornment for the parlor—mailed free in each case.

Anyone sending us

FIFTEEN SUBSCRIBERS

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To the person who will mail us on or before the 31st of Oct. 1884

THE LARGEST NUMBER

of yearly subscribers we will send a splendid Family Sewing Machine (price \$55) or a \$50 Braach loading Rifle or Shot Gun, or a \$50 Library of choice books, as the winner prefers. The name of the winner, together with the names of the subscribers he or she shall have taken, will be published in our November number.

Those who do not win will get a cash rebate of 10 cents on each subscriber, so that none will lose their labor.

Those who try for this prize should start to work at once. The time is short, and the reward may be easily won where the subscription price is so low.

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All competitors will please write the names and post-office addresses in a plain legible hand and remit by registered letter, P. O. order or Cheque.

Responsible persons who wish to become resident agents will please write the publishers for terms.

CLUB TERMS

EXTRAORDINARY.

THE CANADIAN DAIRYMAN, one year, and Kendall's Celebrated Horse Book, - - - 60 cts.
THE CANADIAN DAIRYMAN and the Dairy and Farm Journal, of Iowa, (subscription price 75 cts. a year, and devoted almost exclusively to the dairy interest), one year, - - - 60 cts.
THE CANADIAN DAIRYMAN and the Beeton World, the only purely beekeepers' paper in Canada (published weekly, subscription price \$1.00) one year, - - - \$1.00
THE CANADIAN DAIRYMAN and the Stock Raisers' Journal, the only stock raisers' paper in Canada (subscription price \$1.00) one year, \$1.00

THE ENTIRE LIST of the above papers, that is, the *Canadian Dairyman*, the *Dairy and Farm Journal*, the *Beeton World* and the *Stock Raisers' Journal*, with the *Horse Book* thrown in, for \$2.00 a year.

These extraordinary offers are open only so long as the subscription to the CANADIAN DAIRYMAN remains at 50 cents a year.

ADDRESS:

Canadian Dairyman Pub. Co.,
162 ST. JAMES STREET,
MONTREAL.

FREE.—Send for "The Dairyman's Guide," Mailed free to any address in Canada. Address Wells, Richardson & Co., McGill st. Montreal.

CHEESE MAKING.

Last year the Wisconsin Dairymen's Association offered \$15 for the best essay of 250 words, on cheese-making. The prize was won Mr. T. D. Curtis, of Syracuse, N.Y., the following being the essay:—

Pure, whole milk from healthy cows, in luxuriant pastures, or fed duly balanced rations in stall, is requisite. The more directly it goes to the vat, the better. If kept over night, reduce the milk to sixty-five degrees Fah. An agitator, to keep the cream from rising, is desirable. Mix night's and morning's milk when ready to work. If cream is mixed in, warm it, and pass it through a wire strainer. Heat the milk slowly to eighty-four or eighty-six degrees. Add your coloring matter and rennet enough to begin coagulation in ten to twenty minutes, as desired. Cut the curd as soon as it can be done without waste as fine as beachnuts. Slowly raise the temperature, gently stirring all the while, to ninety-eight degrees. Hold it there to the end. Draw the whey as soon as there is the last sign of acid, or a little before. Get sufficient rennet action to expel the whey before the acid develops. This prevents the phosphates from washing out, and insures a digestible cheese, when properly cured. If you cheddar and grind or not, thoroughly stir and air the curd, to get rid of bad odors and develop flavor. Put to press not above eighty degrees, and place in an even-tempered curing room at sixty-five to seventy degrees. Avoid direct draughts of air, and carefully turn and rub the cheese, which will be prime.

"CHEWING THE CUD."

A very large tribe of animals, of which sheep and cows are only familiar examples, are called in works of natural history *Ruminantia* because they all ruminate, they chew the cud. They do so because their peculiar organs of digestion require it; They can get their nourishment in no other way. They have, it is said in the books, four stomachs, but the statement is not strictly correct, for the entire digestion is done in a single one, that which is called the fourth, the other three being only places for preparatory work. Their food is swallowed without being chewed; the chewing is to come later. When this unchewed food is swallowed it passes directly into the first stomach, to use the common term; but the drink which is taken goes straight past the entrance of the first into the second. These two serve only to soak and soften the coarse food. When the first has done what it can, the food passes out of it into the second, and then the cow or sheep is ready to chew the cud."

The second stomach, while busy at work in soaking the food, keeps in motion, and gradually rolls it up into masses, so that in the small upper part there is formed an oblong solid lump of the size that we recognize as the "cud."

This the animal throws up into the mouth, and chews with evidently as much satisfaction as the same act of mastication gives us when we put the most delicate morsels between our teeth. When it is sufficiently chewed, the mass is swallowed, and its place taken by another which has been rolled up in the mean time.

But the "cud" thus masticated does not return to the second stomach from which it had come. It passes smoothly into the third, a place for additional lubrication, and then into the fourth, where the true digestion begins and ends.

The Rodney factory have shipped a car-load of cheese direct to Europe.

NORTH-WEST CATTLE.

We take the following from the 7th annual report of the Manitoba Bureau of Statistics: Farmers are beginning to turn their attention to cattle raising in a very marked degree, and the numbers will no doubt be greatly increased from year to year. From all that can be gathered a great many calves are being reared this season by all who can at all do so. The great percentage of cattle are grades, although there are a considerable number of thorough-breds, principally Durhams. Dairy farming is carried on as largely as the means of farmers will admit of. All the butter that can be made is made, and the supply is largely in excess of the consumption in the great majority of townships. Very little cheese is made in excess of that required for farmer's own use, although nearly all appear to make it. It is doubtful if any other part of the Dominion is more favorable for dairy farming than this Province. In some of the older Provinces the making season for butter and cheese may be longer, but then drouth frequently prevails, and the partial failure of the pastures results in a corresponding failure of the supply of milk. In Manitoba, on the other hand, dried up pastures are the exception, the grass possesses the most nourishing qualities and the rainfall is generally abundant and very evenly distributed.

Messrs. Grand & Walsh, Toronto, announce in our advertising columns two great combination sales, one of thoroughbred cattle to be held October 6, 7, and 8, and the other of thorough bred and trotting stock and work horses on October, 9, 10, and 11. Nearly all the most prominent breeders of Shorthorn, Devon, Durham, Ayrshire, Jersey, and other breeds of cattle have promised to make entries in the first sale, and for the second Mr. John Carroll, St. Catharines; Mr. John White, Milton; Mr. Attrill, Goderich; Mr. Hunt, Port Hope, and Mr. J. P. Wiser, Prescott, have stated their intention of sending numerous lots. Entries will close September 20, when a catalogue with extended pedigrees will be printed.

Raw eggs, shells and all, are recommended as a remedy for scours in cattle. Pull out the tongue, crack the egg, clap it on the root of the tongue, and let go. Two or three are enough for a young calf; from that up to two dozen for a cow. It is also the best cure for loss of cud.

O. M. Tinkham, secretary of the Vermont Dairymen's Association, has devised some improvements in packing butter. Instead of lining his packing boxes with muslin, he uses a certain kind of brown paper, which is odorless and tasteless, and costs very little. He also lines his cases thoroughly with a layer of felting half an inch thick. This, it is alleged, keeps out the heat most effectually.

The farmers of Belgrave, Ont., are preparing to establish a creamery.

The cheese factories of East Farnham report a good business this year.

The Howick cheese and butter factory of Fardwich found the manufacture of butter did not pay them, and have gone into the manufacture of cheese.

To meet the wants of the town Trenton proposes to have a butter market.

REVIEW OF THE MARKETS.

CANADIAN DAIRYMAN OFFICE.

MONTREAL, 5th Sept., 1884.

The state of the cheese market can be described in the word dull. A great deal of stuff is still held in the country. Much of the July make is yet in hand, while nearly all of the August make is held by those who have contracts and by those who have not. The ruling rate for first quality is 9½ to 10 cts.

The butter market is also quiet. Creamery is in good demand at 21c to 22c. There has not been so much enquiry for Eastern Townships, which is being held at 20c, a figure that will probably prove too high. Western butter of medium quality has sold well at 14c to 17c.

HIGHER PRICES FOR BUTTER.

All dairymen who use Wells, Richardson & Co.'s Improved Butter Color agree that it increases the value of butter several cents a pound. It is pure and harmless, convenient for instant use, has no taste or odor, and gives a clear, golden richness to the butter. It is the very best butter color obtainable, and is not expensive. In every State in the Union the demand for it is increasing.

THE RECORD OF FAIRS.

The superiority of Wells, Richardson & Co.'s Improved Butter Color over all others made is again demonstrated by its record at the Autumnal Fairs. The test of practical use is what tells the story, and the great value of the premiums given by the Agricultural Fairs lies in the fact that the judges in these cases are regular farmers, who know what their needs are and what will supply them. Wells, Richardson & Co.'s Improved Butter Color, which has taken first premium at all fairs where exhibited, is put up in a vegetable oil so prepared that it cannot become rancid, a most important property, the lack of which is fatal to so many of the Butter-Colors offered for sale. It does not color the butter-milk; it imparts a bright natural color, which is unattained by many others; and being the strongest is the cheapest Color in the market.

The New Brunswick provincial stock farm has been the subject of consideration and discussion of late. It was started by the late government, chiefly at the instance of the late Dr. Elder, the first provincial secretary of the present administration, and has failed to pay running expenses. The blame is laid upon the farm itself, which has been reported against by the Board of Agriculture as unfit for the purpose, and it has been determined to buy or lease another. In the meantime the owners of three or four of the finest farms in the province have offered to care for the stock for the proceeds of the annual sales, under the usual government regulations, of the increase, and the government will have to face a great deal of censure for not having accepted one of these propositions. —*Cor. Gazette.*

S. M. BARRE'S ESSAY

on W. H. Lynch's work on Butter Making, containing a full explanation of Low Cooling, on the keeping quality and Aroma of Butter.

Address:

H. C. PETERSEN & CO.
P. O. Box 1379, MONTREAL.
— PRICE 25 CENTS —

"GET THE BEST."

In compliance with a pressing public demand, PORTER BLANCHARD'S SONS have recently invented A HAND BUTTER-WORKER, which operates on the principle of direct and powerful pressure, instead of rolling, grinding or sliding upon the butter. They claim that it is the only Butter-Worker which will certainly, quickly, and easily take out all the butter-milk, and which does not and cannot injure the grain of the butter. It works in the salt as easily and as well. SEND FOR CIRCULARS ILLUSTRATING AND DESCRIBING THIS NEW WORKER. It is guaranteed to be exactly as represented.

WM. EVANS, Sole Agent, Montreal,

In France, dairy cows are obliged to be kept scrupulously clean, dairy curried, and their holders carefully washed and dried before milking. The houses are models of cleanliness, and the dairy utensils not only kept clean—but highly polished. Cows there are milked three times a day, namely, at 4.30 a.m., 11.30 a.m. and at 6 p.m., and the milk rooms kept at 50° Fahrenheit summer and winter.

Skillful milking not only means gentle, rapid and complete extraction of the milk from the udder, but it means more than that. Much butter is ruined before the milk has left the barn. Cows should be brushed clean before milking. The stable should be kept always clean, and always well ventilated, so as to be quite free from foul odors. These rules are neglected at a heavy cost to the butter maker, for all bad smells are quickly picked up by the milk as it flies from the teat to the pail, and once in they cannot be got out. Tobacco is as bad as dung to taint milk.

The old rule was that a heifer with her first calf could be reckoned half a cow. They will generally be better than this if well fed and cared for. If the family from which the heifer springs has been of a good milking strain, they can usually be bought of native breeds for much less than they are worth. They more than pay their way, and yearly increase in value until they are six years old, when they are at their prime.

R. MOWRY,
ASHBURNHAM, ONT.,
MANUFACTURER OF

Thrashing Machines,
Horse Powers and Sawing Machines.

ALL WORK WARRANTED.
Repairs of all Kinds promptly attended to at Moderate Rates.

Write for prices before placing your order.

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The Blanchard Churn.

Best in every particular, and without any exception. Circular giving description and prices mailed free to all applicants.

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Tents, Flags, Hammocks —AND— Camp Furniture.

Best and Cheapest. Highest awards wherever exhibited. Send for Catalogue.

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Two first prizes and only Medal at Dominion Exhibitions.

LACE LEATHER.

Three first prizes and only Medal at Dominion Exhibitions.

Factory --- DANVILLE, QUE.

Others have their specialty—we have none. With the best possible appliances, we are determined to make

ALL OUR BELTING

The Best in the market, including our Driving Belts—both Double and Ribbed—which are not, and cannot be excelled.

Orders promptly filled.
Full satisfaction guaranteed.

ADDRESS:

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CHARLES BODEN & CO.,
PRODUCE EXPORTERS

AND
COMMISSION MERCHANTS,
111 and 113 KING STREET,
MONTREAL.

Consignments solicited. Butter, Cheese, and General Country Produce. Highest market prices obtained.

PARMENTER'S

DAIRY CREAMER AND ROCKAWAY CHURN.

Simple, Durable and Convenient for Handling large or small quantities of Milk.

A Model of Completeness, Simplicity and Durability.

A child can work it. A perfect butter maker and butter worker combined, made of Indiana white-wood, perfectly tasteless, nothing to break or wear out, will last a life-time.

PRICES:

No. 1, one 8 gal. can about 6 cows.....	\$25.00
No. 2, two 8 " " " 12 "	35.00
No. 3, three 8 " " " 20 "	50.00
No. 4, four 8 " " " 28 "	60.00

PRICES:

No. 1, capacity 4 gals. or less.....	\$ 9.00
No. 2, " 7 " "	10.00
No. 3, " 10 " "	11.00

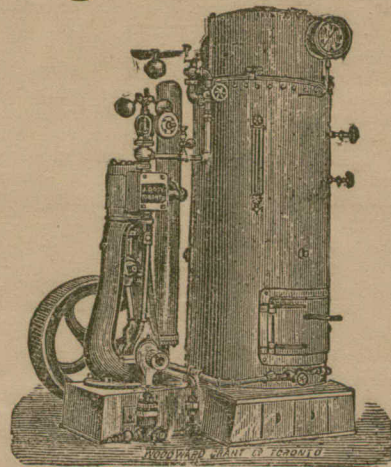
Power Churns for Creameries, any Capacity, to order.

Responsible and pushing agents wanted. Secure territory early for the best selling Churn in the market.

Address:

Dairy and Domestic Utensil Co.,
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Cheese & Butter FACTORIES.

Our specialty, The Doty Vertical Engine and Boiler from 3 to 15 Horse Power. Hundreds in use. Simple, Durable and Economical. Send for circulars to the

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DAIRY PRODUCTS

Fork Packer and Commission Merchant,
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Correspondence with factories solicited.

North American Chemical Co.,
CODERICH, ONT.

Rice's Pure Dairy Salt.

Largely used by Creameries and Cheese Factories in Canada and United States.



Awarded 12 First Prizes, 7 Diplomas, and 8 Medals in two years.

224 lbs. in Fine White Sacks,
56 lbs. do.

TABLE SALT.

7 lbs., 5 lbs. and 3 lbs. in white bags in bbls.
* Write for Circulars and Prices.

VERRET, STEWART & CO.
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GOOD WAGONS AT LOW PRICES.

Quality and Cheapness Our Motto.

If you want a fine Wagon and cheap, Write for Prices.

We contract to supply the Wholesale Trade.

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MANUFACTURERS OF THE FIRST

Complete, Scientific and Cheap Outfit for Butter Making.

CONSISTING OF A

- Thermometer,
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- Creamer,
- Cream Holder.
- Rotary Churn,
- Butter Holder,
- Butter Press,
- Air-Tight Butter Package.

Send for Prices and Particulars to the

DOMINION DAIRY HOUSE,
DANVILLE, QUE.

GRAND'S REPOSITORY,

47, 49, 51 and 53 Adelaide st. West, Toronto.
Having met with some flattering success at our recent sales of fancy cattle, we shall hold a GREAT COMBINATION SALE OF THOROUGHBRED CATTLE, to take place at our Repository,

October 6th, 7th and 8th.

We have been in correspondence with several of our most prominent breeders, who have already made large entries of Short Horn, Durham, Devon, Ayrshire, and Jersey Cattle.

We respectfully solicit correspondence from all owners and breeders having fancy stock of any kind to dispose of.

The above sale will be followed, October 9th, 10th and 11th, with a COMBINATION COLT SALE of Thoroughbred and Trotting Stock and 200 work horses.

We have already received large entries from Mr. John Carroll, St. Catharines; Mr. John White, Milton; Mr. H. Y. Attrell, Goderich; J. H. Hunt, Port Hope, and probably Mr. J. P. Wisner, Prescott, and others. Entries will close Sept. 20th, when catalogues with extended pedigrees will be published, and may be had on application.

These sales are being thoroughly advertised throughout Canada, Manitoba, and the United States, and neither time, trouble nor expense will be spared to make them the largest and most successful yet held in Canada. Sales will commence each day at 10 o'clock sharp.

GRAND & WALSH

Proprietors and Auctioneers.

Mention the DAIRYMAN when writing.

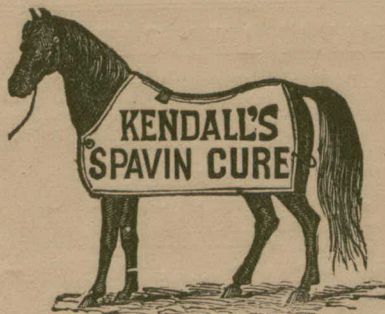
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FOR SALE

Rights for Counties in the Eastern Townships of the Celebrated L'Original Creamer.

For Terms, address

P. H. McINTOSH,
L'Original, Ont.



The most Successful Remedy ever discovered, and it is certain in its effects and does not blister. Read proof below.

Wallaceton, Va., March 3rd, 1884.

DR. B. J. KENDALL & Co., Dear Sirs:—We have used two bottles of Kendall's Spavin Cure and think it is the best liniment, for both man and beast, that we have ever used.

WEST BROTHERS.

KENDALL'S SPAVIN CURE.
From the "Spirit of the Times," Dec. 22, '83.

It is admitted there is a great advance in veterinary science within the past decade, yet many will scarcely believe that a spavin cure is possible. Fortunate indeed, however, is it for the poor horse suffering from lameness of this kind that Kendall's Spavin Cure has been discovered, as it is certain in its effects, and has worked wonders in thousands of such cases. Send for illustrated catalogue, giving positive proof, also for sample copy of Kendall's Treatise on the Horse and his Diseases; both free. Price of the Spavin Cure, \$1. Address Dr. B. J. Kendall Co., Proprietors, Enosburgh Falls, Vt.

ROCK SALT.

LUMP ROCK SALT, suitable for Cattle, Baths, Etc. For feeding to horses and cattle this natural salt is much better and lasts longer than ordinary bag salt. Place a lump in the manger; the cattle will lick it with a relish. For sale in bulk or packed in barrels.

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Will Re-open on September 2nd.

Very valuable additions have just been made to the Faculty. Every department fully equipped. Literature, Science, Philosophy, Languages, Ancient and Modern, Book-keeping, Stenography, Music, and Art, all in charge of thoroughly competent professors and instructors. Advantages in Music and Art of the highest order, and specialists furnished, with every convenience. Our building cost \$110,000, and has over 150 rooms, immense halls, parlours, and recitation-rooms, and thoroughly ventilated bedrooms. The health rate of our pupils is not surpassed, if indeed equalled, in any other college in the Dominion. Terms very moderate. Address the Principal.

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Monthly, tells all about Fruits, Flowers and Vegetables. Sample copy free. Ainsworth, Iowa (Say where you saw this.)

TICKS ON SHEEP SCAB
LICE ON CATTLE MANGE
—Sure Remedy. Very Cheap.—

THE COLD WATER DIP!

(Tar Elixir Sheep Dip.)

NESS & CO., Prop'rs and Manuf'rs. DARLINGTON, ENG.

This Dip has been manufactured since 1873, and used successfully in England during the whole of that period, and is now introduced into the U. S. for the first time.

Increased quantity and improved quality of the WOOL, making it bright and silky, pays the whole cost of the Dip. One trial of this Dip will prove its excellence. For its various uses in detail and prices, send postage stamp to

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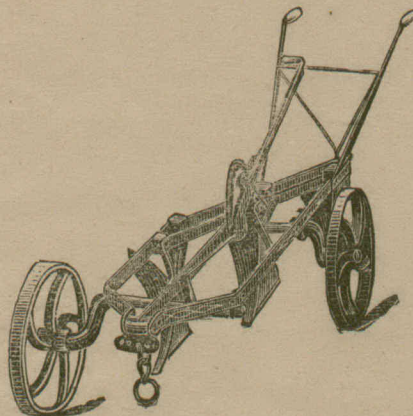
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WRITE FOR PRICE LIST—MENTION THE DAIRYMAN.

GRAND DOMINION
AND 39th
PROVINCIAL EXHIBITION,

Under the auspices of the
Agriculture and Arts Association of Ontario,
TO BE HELD AT
OTTAWA
ON THE
22nd to 27th September, 1884.

23,000 DOLLARS IN PREMIUMS
AND DOMINION MEDALS.

Entries must be made with the Secretary at Toronto, on or before the undermentioned dates, viz.:
Horses, Cattle, Sheep, Swine, Poultry, Agricultural Implements, on or before August 23rd.
Grain, Field Roots, and other Farm Products, Machinery and Manufactures generally, on or before August 30th.
Horticultural Products, Ladies' Work, Fine Arts, etc., on or before September 6th.
Prize Lists, and Blank Forms for making the entries upon can be obtained of the Secretaries of all Agricultural and Horticultural Societies and Mechanics' Institutes throughout the Province and from the Secretary.

HENRY WADE,
Agricultural Hall, Toronto.

IT STILL LEADS.



Is the most economical to buy and safest to use.
Contains no deleterious ingredient. Food prepared with it may be used by the most delicate without injury. Dyspeptics may use it with advantage.
Beware of alum powders which may make very white bread, but are dangerous to use.
The Cook's Friend is free from Alum, Lime, Ammonia or anything that can hurt or injure.
Be sure you purchase the genuine

"COOK'S FRIEND,"
no variation from, or addition to that simple name is genuine.

Manufactured only by
W. D. McLAREN,
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We manufacture all kinds of Dairy utensil such as:

- Milk Pans,
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- Churns,
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We devote special attention to Grass Seed Mixtures for hay and pasture, and to Forage Plants, which are absolutely necessary to successful dairy farming.

Our Stock of

Grain and other Farm Seeds,
As well as

FLOWER SEEDS,

Is extensive and carefully selected.

We ask intending purchasers to let us know their addresses and we will mail (free) our *Illustrated Priced Seed Catalogue*—either in French or English.

STANDS UNRIVALLED!

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There is no soap on the market that can in any way compare with

**STRACHAN'S
"GILT EDGE"**

for purity, cleansing properties, full weight and general excellence.

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36 38 & 40, Jacques Cartier St., Montreal.

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IMPORTERS OF

Fancy and Staple Dry Goods,

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Orders executed in the latest styles, and on the shortest notice.

Samples of Materials sent by Mail, when desired.

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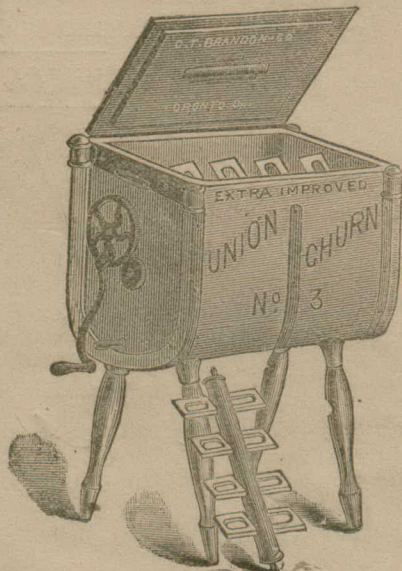
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Commissioners Street,

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Butter, Eggs & Cheese a Speciality.

THE EXTRA IMPROVED UNION CHURN.



Admitted to be the Best Churn in the World.

Took the following 1st Prizes against all competitors:—

- Hamilton.....1876 and 1881
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- Paris, France.....1878
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- Toronto.....1878, 1879, 1880, 1883

Made in Four Sizes:—

- No. 1.....\$ 8 00 each.
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- No. 4.....11 00 "

If the Union Churn is not kept in stock by any dealer in your nearest town, we will forward to your nearest railway station for above prices. Send for circular.

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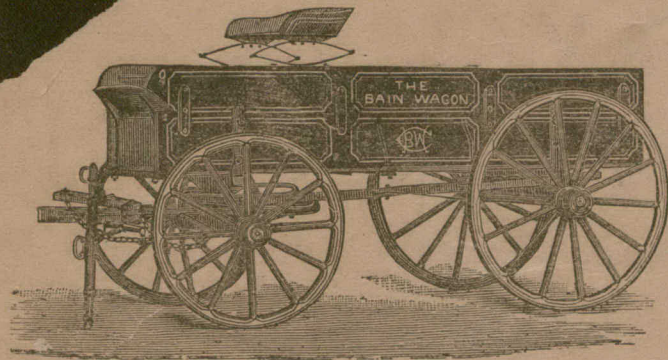
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Manufacturers of all kinds of Wooden Goods.

Yours truly,

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THE FARMER'S FAVORITE. Because it is the lightest running made. No inferior iron is used, and special attention is paid in ironing the wheels before the tire is put on are thoroughly saturated in boiling oil, which is a sure preventive of loose tires. The patent arms made in our own patterns are superior to those made by other makers. All material used in painting it is of the finest quality, which gives it a superior finish. Every wagon is inspected in all its parts by one of the members of the company before being sent out. It is just as represented every time.

Agents wanted for every county. Send for descriptive circular and griees to the
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 DEBENTURES ISSUED in Currency or Sterling, with Interest Coupons attached, payable in Canada or in England. Executors and Trustees are authorized by law to invest in the Debentures of this Company.
 MONEY ADVANCED on Real Estate, securities at current rates and on favorable conditions as to repayment.

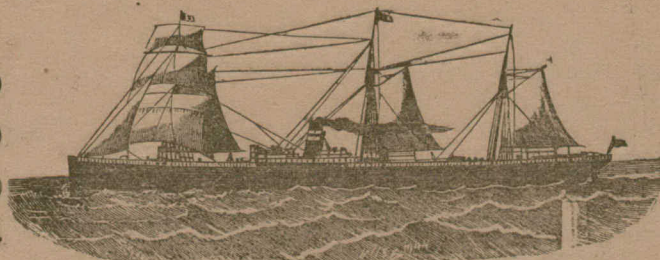
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BEAVER LINE OF STEAMSHIPS.

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The Line is composed of the above named first class full powered Clyde built Steamships unsurpassed for strength and comfort.

And will sail from Montreal for Liverpool direct as follows:

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These Steamships have superior accommodation for Saloon Passengers, are provided with baths, smoking rooms and all the most modern improvements to promote their comfort and safety. Excellent provision has also been made for the Steerage Passengers, each steamer being supplied with Thompson's Patent Canvass Berths. Cabin Passengers land and embark at Montreal, saving the trouble and annoyance of transfers at Quebec. An experienced Surgeon and Stewardess carried on each Steamship.

Rates of Passage.—Cabin, Montreal to Liverpool \$50. Return Tickets \$90. Steerage at Lowest Rates.

Special accommodation is provided in these steamships for **Shipments of Butter, Cheese, Provisions, etc.**

Through Bills of Lading are issued to and from all Grand Trunk, Canadian Pacific and other Railway Stations in Canada.

For Passage, Rates of Freight, or other particulars apply to **R. W. ROBERTS, Manager, 21 Water Street, Liverpool, H. E. MURRAY, General Manager, 1 Custom House Square, Montreal, or the Local agents in the different Towns and Cities.**

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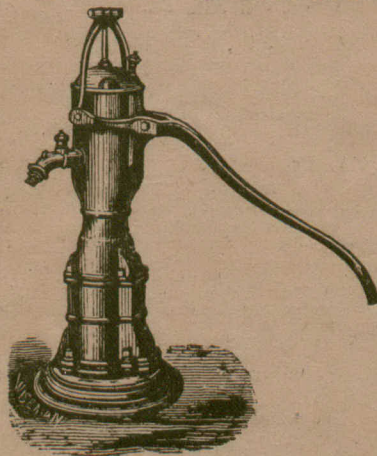
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Windmills,

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Hydraulic Rams, etc.

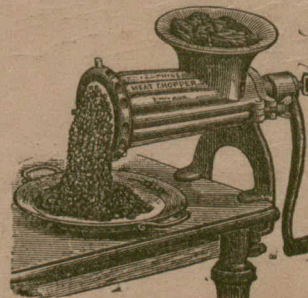


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NEW MEAT CUTTER AND FRUIT PRESSES,

The best article made for the purpose.

LARGEST STOCK OF HOUSE FURNISHING HARDWARE.

Curtain Stretchers, Carpet Sweepers, Fine English Pocket and Table Cutlery, Iron Bedsteads, Wringers and Washers, Hall and Cooking Stoves, &c., at

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1588 NOTRE DAME STREET,
 (OPPOSITE COURT HOUSE.)

Coop

DE LAVAL CREAMSEPARATOR

CAPACITY 750 TO 800 POUNDS OF MILK PER HOUR.

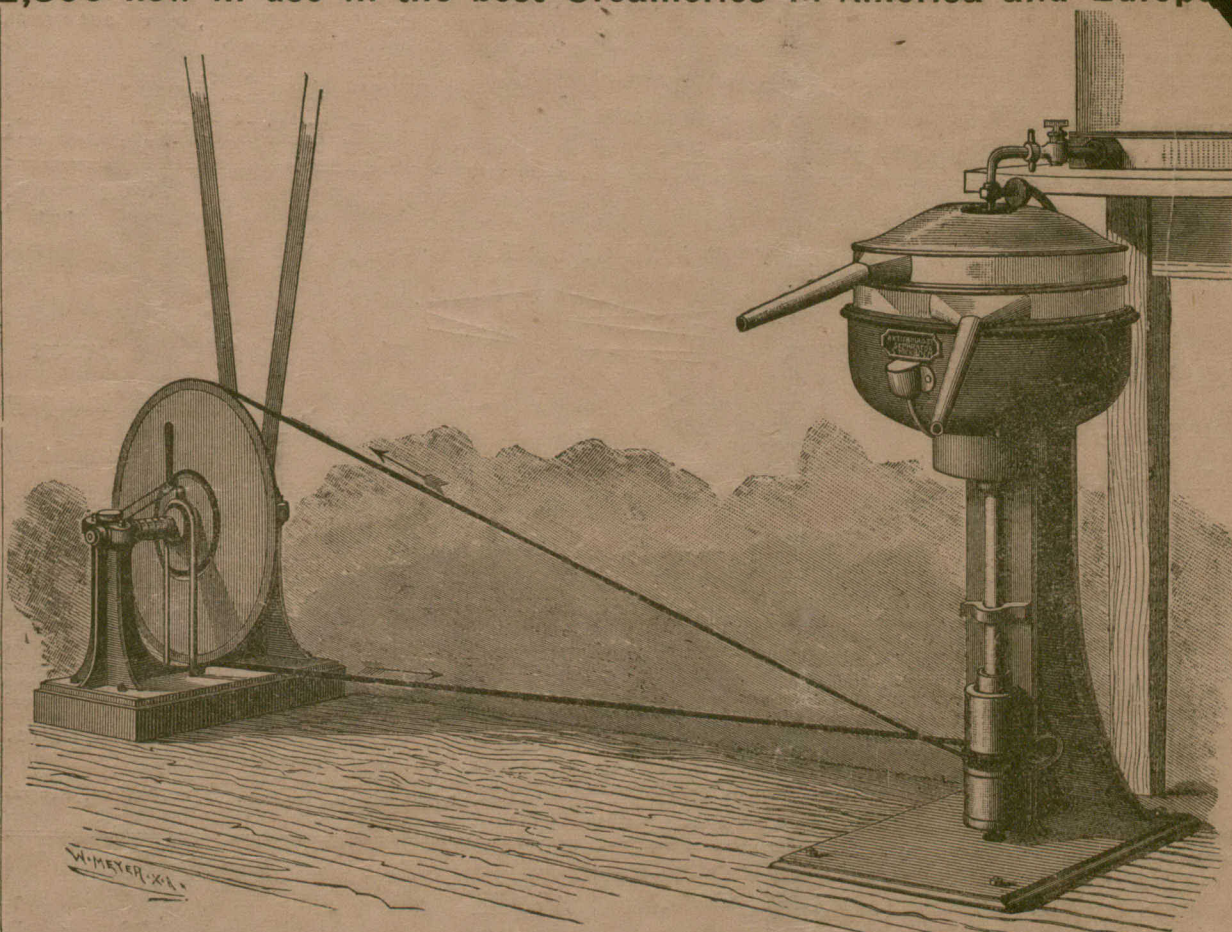
ONE HORSE POWER PER MACHINE.

THE GREATEST DAIRY IMPLEMENT.

Perfect In Operation, Construction and Work.

2,500 now in use in the best Creameries in America and Europe

Earns its cost in one to twelve months, according to number of cows.



Protected by every Patent ever issued on Cream Separators in America

FACTS AND RESULTS.

Here are a few of the facts and results of the sale and use of the De Laval in U. States and Canada.

"ST. ALBAN'S, Vt., April 22, 1884.
Our foreman has just arrived, and reports that he set up and started a Separator at Scranton, with one of our one-horse power, skimming the milk last night and this morning cleaner and better (to use the lady's expression), than she could after 20 years' experience.
N. C. HYDE, *Sup't.*

"WILTON, N.H., April 21, 1884.
We like your Machine, and doubtless in time shall use more of them.
D. WHITING & SONS."

"AMELIASBURG, Ontario, May 29th, 1884.
Mr. Frank Wilson, Manager De Laval Cream Separator Company of Canada.

"Dear Sir, We are pleased with the De Laval Separator: it more than meets our expectations; We can discount any record you have given in any of your descriptive catalogues or circulars—do more milk per hour, and get more butter from same quantity of cream. We are sure that we are taking over 25 per cent. more butter from the milk than we ever could get by Setting Coolly process. There is no use talking about the old slow and uncertain process, this is a sure thing and it is only a matter of short time, when setting milk for cream will be looked upon as out of the question.
Yours truly,
JOHN SPRAGUE.

"SYRACUSE, N.Y., April 22, 1884.
From Iram C. Reed, Sec'y. and Treas. Orion Co. Milk Association, No. 44 East Fayette St.

"I am glad to say the De Laval Separators more than fulfil our expectations. They go way ahead of what we had thought they could do: we are running about 2,000 quarts of milk through them daily, and shall soon double the amount. We think the cream, butter and cheese are all improved by the Separator.
IRAM C. REED."

"The Separator works splendid. We think they are as near perfect as can be.
GREELEY, Col., April 23, 1884.
HAWKS & CO."

"Your Machine does more than you claim for it. We get almost twice as much butter as by any other method. We can run through 900 pounds an hour, easy, and we can run a 200-gallon churn and the Separators with thirty pounds of steam. I am very much pleased with the Separators.
MANHEIM, Ill., April 24, 1884.
C. H. ROSENBERG."

"Jos. H. Reall, President: WEST CHESTER, Pa., April 12, 1884.
"J. & J. Darlington were in yesterday, and say their machines are like an old fiddle—the longer they run, the better they get.
Yours, &c., P. M. SHARPLES."

J. H. Bassler, Myerstown, Pa., writes:
"The Separator works admirably. There is no sign of cream remaining in the skim-milk."

FOR CATALOGUES AND OTHER INFORMATION ADDRESS
DE LAVAL CREAM SEPARATOR CO. OF CANADA, FRANK WILSON, General Manager,
19 ST. PETER ST., MONTREAL.