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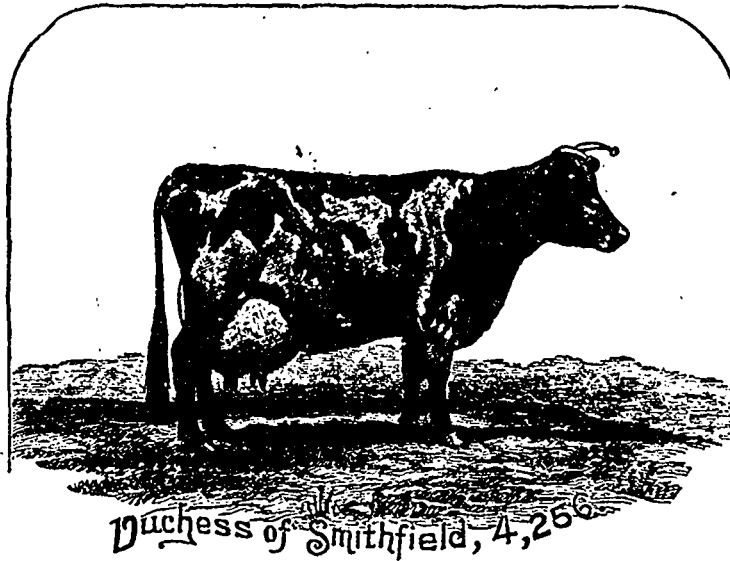
THE DAIRYMAN

A Journal devoted to the Dairy, Cheese Factory and Creamery.

Vol. II, No 4.

MONTREAL APRIL 1886.

SUBSCRIPTION
\$1.00 PER YEAR.



If in the margin of this notice a blue cross is found, it will indicate that your subscription is due, and you are respectfully requested to renew it at your earliest convenience. If this is a sample copy, please take it as an invitation to subscribe, or better still, to form a club in your district.

DUCHESS OF SMITHFIELD.

This month's illustration is a faithful portrait of the beautiful cow, Duchess of Smithfield, 4256, H.R.A.B.A. In the first week of June, 1885, she gave 463 $\frac{3}{4}$ lbs. of milk, which yielded 19 lbs. 6 ozs. of butter. The daily average of milk was 66 $\frac{1}{4}$ lbs. She made 9,216 lbs. of milk for her owner the year before on moderate feed without forcing. For the year 1885, she registered 10,748 $\frac{1}{4}$ lbs. of milk in 301 days, or, a daily average of 35 $\frac{3}{4}$ lbs. Three and a half imperial gallons per day, for ten months, is worth working for, and worth ten thousand times the little trouble taken to record the facts. Why do not our Canadian Ayrshire men keep records? I am sure we have cows in Canada that would test as well as this if our breeders would follow the example of the owner of Duchess of Smithfield. Mr. H. R. C. Watson may well feel proud of having carried the highest prize on the Continent for his Ayrshire cow. Pedigrees and fancy points are very well as indicating good family connection, but unless supported by evidence of individual capacity at the pail and churn, they count for little. We want more Canadian tests.

A JERSEY TEST

has just been made by Mr. Wm. Rolph, at Markham, the subject being MAGGIE SHELDON, 23583. She dropped a fine calf on Feb. 1st, by Brier Pogie 14.163, a son of Diana's, Rioter and Sweet Brier, of St. Lambert, one of the best daughters of Lord Lisgar. Maggie Sheldon gave 288 lbs. of milk the first week of her test, and 293 lbs. the last week. In thirty-one days she made 1,274 lbs. of milk, which gave 93 lbs. of butter. Each week her butter exceeded 21 lbs., thus placing her high up in the list of butter makers. Her feed was 32 lbs. of peas and oats daily, clover, hay, and one-half bushel of mangolds. In the last ten days she had, in addition, four quarts of bran and oats, mixed, given wet. Daily averages, milk, 41 lbs. Butter, 3 lbs., equals 7.3 per cent.

QUEBEC DAIRYMEN'S MEETING.

On the 14th of April a meeting of the Dairymen of this province will be held in Quebec Parliament buildings for the purpose of discussing questions of general interest to agriculturists and dairymen. These meetings are usually held a few days after the opening of the local assembly, and are intended to influence legislation on agricultural subjects. They afford an excellent opportunity to legislators for cultivating a more intimate acquaintance with the practical needs of the country. The Canada Pacific, Grand Trunk, Quebec Central, and Intercolonial Railways will each carry passengers attending the meeting at reduced fares.

SEA GULL DUKE

8391, A. J. C. C.

Dropped June 17th, 1882. White tongue; white switch; a good deal of white on body; light color; good bone; straight on back; an A 1 curveline es-cutcheon; and promises to be of most excellent quality.

His dam was a most superior cow, and gave, when fresh, 19 quarts of milk per day, of exceeding richness. The flow of milk with her last calf caused milk fever, and she died in quarantine. Her full sister, Epigea 4631, in my herd, milks 22 quarts per day. Thomas M. Harvey, who formerly owned her, considered her equal to Bertha Morgan, 19 lbs. 6 ozs., official test, and this opinion was shared by Mr. Samuel C. Kent, who was thoroughly familiar with her capabilities. In her ancestors she possessed the richest of blood. Sea Gull, imp., 398, was most notorious in Pa., not only for her milking qualities, but on account of the very superior stock she produces. Niobe 99, was a 20 quart cow; 1st prize at the Centennial Exhibition, and made 14 lbs. 1 oz. of butter in seven days. Emperor 328, Colonel 761, Iron Duke 18, Commodore 229, Major 75, and Pilot 3, were all celebrated bulls. Mollie, Garfield, who has recently made such a marvellous yield, 526 $\frac{3}{4}$ lbs. in 277 days, is of the blood of Pilot 3, being his g. g. daughter, as are also Silver Rose 4743, record 16 lbs. 14 ozs., Romp Ogden and 4764, 14 lbs. and Pixie 4115, 14 lbs., Countess 114, has a record of 16 lbs., and Europa 121, 16 lbs., and is the dam of Angela 1682, 14 lbs. 2 oz.

TESTIMONIALS.

VERGENNES, Vt., April 7, 1884.

FRANK WILSON Esq.

Dear Sir,—You may mark down the De Laval Separator a success, and the *Old's one horse power indispensable to it. The speed regulator is wonderfully accurate, running the Separator as set 6,800, not varying 100 revolutions either way.* We are now separating the milk of sixty cows in about fifty minutes, taking out every particle of cream as fast as milked from the cow, feeding the warm milk to the calves and pigs, who take it with a relish. We find an increase in the yield of butter sufficient to warrant the expense of Separator and power to any dairy of twenty-five cows. I believe this combination—the *DeLaval Separator and Old's one-horse power—must eventually come into general use.* The butter is very much superior. The milk is worth more to feed. A complete separation is assured, be the weather either hot or cold. The work is reduced to a minimum. *Every farmer needs the Separator and horse power.* and the cost is less than most devices for setting milk where a suitable building or room has to be provided.

Yours respectfully, A. D. EVARTS.

HAMILTON.

Dear Sir,—I having bought and used the first Centrifugal Cream Separator in Ontario, take much pleasure in giving you the following facts.

I first bought a Burmeister and Wain Machine which is the same as the Danish Weston. It did good work for a time, but before the end of the first year it had cost me over (200.00) two HUNDRED DOLLARS for repairs and would not work satisfactorily, so I put in a De Laval and have given it a thorough trial, and find it does its work to perfection, I will recommend it to all, as any boy or girl can run it, and I must state that nothing short of a first class machinist can manage the Burmeister and Wain.

I have seen the De Laval running now the second year, and it has not cost (\$2.00) two dollars for repairs the whole time, and is doing as perfect work as ever.

I also find that the De Laval will work at its best by setting it level on any ordinary floor and the Burmeister and Wain requires a solid stone foundation. The foundation for my Burmeister and Wain cost me over (\$50.00) FIFTY DOLLARS.

||I do the largest cream trade in Canada as well as manufacture Butter and Cheese, and I can with the De Laval Cream Separator make a better sample of Cream for a city trade that can possibly be done with the Burmeister and Wain, and equally good for Butter.

All parties wishing to buy Separators are invited to come to my place in the centre of the City of Hamilton, and see the Burmeister and Wain and the De Laval working side by side and draw their own conclusions.

Yours truly,

W. G. WALTON.

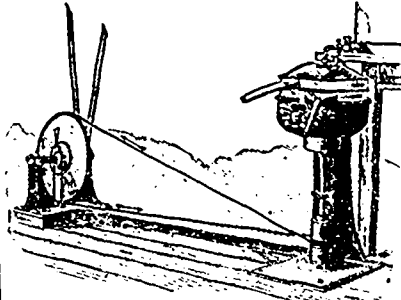
CREAM BY MACHINERY.

De Laval Cream Separator.

THE

Greatest of all Dairy Improvements.

Extracts the Cream from milk fresh from the cow. Saves time. Does away with the need of ice. Leaves the skimmed milk fresh and sweet. And gives 10 to 15 per cent. more and better butter than any other process and 20 to 25 per cent. more than common setting. Never wears out. Soon saves its first cost. Over 4000 in use. Adopted by the best private butter makers and creameries in Canada, the United States, and Europe.



The Machine is simple in construction, easily managed and cleaned, and requires less than one-horse power to run. It is adapted alike to the dairy and the creamery. All wearing parts can be replaced for TEN DOLLARS, so that there can be little expense for repairs; while the machine itself will last for years, being constructed of the best iron and steel, and on the highest scientific principles.

For Samples of the Testimonials of its Superiority, see adjoining Column.

Address, for Catalogue and Further Particulars,

The De Laval Cream Separator Co.,

19 St. Peter St., Montreal.

FRANK WILSON, Manager, BOX 1824.

WYOMING, Ont., Oct. 5th, 1885.

DEAR SIR,—My decision has been formed for some time past, and I can say, after due consideration, having used the Burmeister & Wain machine for two years, and the "De Laval" for the past season, that the "De Laval" is in many ways superior to the Burmeister & Wain, both as to speed in separating, durability and simplicity. Space does not permit me to enumerate the advantages "De Laval" has over Burmeister & Wain, suffice it to say that if I was going to start a butter factory, I would put in the "De Laval" Separators.

Yours truly,
ALEX. PREFONTAINE, Butter Maker.

CAP ST. IGNACE, P.Q., 2 Jan., 1886.

DEAR SIR,—The "De Laval" Cream Separator, which I bought from you last July has given me complete satisfaction. I receive 5000 pounds of milk per day, and I work it with only one machine.

I shall use more machines in the spring, and I shall certainly take the "De Laval" Cream Separators.

Yours truly,
SOLOMON ADAM.

MONTMAGNY, P.Q., 7 Jan., 1886.

DEAR SIR,—I have been using "De Laval" Cream Separators since last June. They have given me all the satisfaction that could be desired. I set up three here, and in the month of July, I set up two at Trois Pistols. I have not spent one cent for repairs, except to renew the little belts once.

What proves that I am satisfied with your machines is, the order which I have lately given you for twelve "De Laval" machines, for new factories which I am going to start in the spring.

Yours truly,
N. L. DUHAINE.

WYOMING, Oct. 10th, 1885.

DEAR SIR,—I have now used three "De Laval" Cream Separators daily for five months, they are running nicer to-day than when we first started, give the highest satisfaction, and have not cost me one cent for repairs except to renew two small belts. After they are put in motion in the morning my daughter aged 15 years can run them until we put through 6,600 lbs. milk, in fact, I think they will be hard to beat. Any one intending to purchase a machine could not do better than buy a "De Laval." They make a thorough separation of cream from milk, and I also claim that is the only way to get pure butter, viz., by passing the milk through a separator, as it takes all foreign matter out of the milk, which is retained in the bowl of the separator. I have no interest in the sale of machines.

JOHN HARTLEY.

St. Lin. P. Q., Dec. 30th, 1885.

DEAR SIR,—After minute examination and repeated trials, I certify that the "De Laval" Cream Separators work extremely well. They offer great advantages to the dairy interests by their economy, quality and increase quantity of butter produced, and the great advantage to farmers to have only to send their milk once a day to the factory. The process of working is very simple; however, it would be a good plan for anyone about to establish a creamery, to serve a few days apprenticeship to save himself unnecessary expense. I believe it essential to its proper working to procure a good engine and to have a competent man to set up and start the machine.

The following is the result I have obtained by using the "De Laval" Cream Separators during one and a-half months, from 1st September to October 15th. I received 207,426 lbs. of milk, and have manufactured 9,643 lbs. of butter from it, which gives an average of 21½ lbs. milk to the pound of butter. I could not obtain this result by any other process.

I invite any person desirous of establishing a creamery to come and pass a few days at my factory, and I will give him all the information and lessons they may want, free of charge.

E. DESMARAIS.

SUSSEX, NEW BRUNSWICK, Aug. 11th, 1885.

DEAR SIR,—I have been using the "De Laval Cream Separator," in connection with the Creamery here since June, 1884, and do not hesitate to express myself thoroughly satisfied with its working.

During the past two months we have separated and manufactured over four thousand (4,000) pounds of milk daily, our force consisting of myself and a boy, who attended the engine as well. So its advantages are apparent as a labor-saving machine.

Although we are now running the machine the second year, it has not cost us twenty-five cents for repairs, and does its work as thoroughly as ever.

Our customers pronounce the butter and cream far superior to that made by pan setting, and we have no trouble in disposing of our product at from five to eight cents per pound above dairy butter.

Should you wish to refer parties in the Lower Provinces to our Creamery, you are at liberty to do so.

Yours truly,

W. K. GRAHAM,

1000 RIVER ST. HALLOWELL, ME.

HOLSTEINS vs. JERSEYS.

Had I as good Holsteins as I saw at London, I should not fear testing them in competition with Jerseys, or any other breed. Canadian Holstein breeders have not devoted that care, time and intelligence to testing cows which Mr. Fuller has, but time will prove them stronger competitors.

I have not all the information asked regarding the Yeomans Holstein butter test, which were all made by cows while in their possession. None were discarded, that I am aware of. If desired for publication in the DAIRYMAN, I think I can procure a full report of those tests.

Mr. Fuller states that Holstein breeders do not report the quantity, kind and cost of feed used to produce their great milk records.

This may be true in some instances, but I know of many where all these details are given.

Mr. Fuller asks for public tests.

They are being made all the time, in various parts of the country. Even in the March DAIRYMAN is one of Mr. H. M. Williams' cow, Glenburine, which tested 82 lbs milk per day for seven days, and 25 lbs. of this milk made a pound of butter.

Mr. Fuller asks a question which it is unreasonable to expect any man to reply to as its answer is contingent on the number of herds of Holsteins in the country, and nobody could answer it, unless he had definite knowledge regarding each. And another as to "how many of these enormous yields claimed for Holsteins have been made by cows when farrow, etc."

This I cannot answer, but know that when Aaggie gave 18,001 lbs. of milk in one year, she was carrying twins. Echo was carrying a calf when she made 18,120 lbs. of milk in one year, and the year following she made 23,775 lbs. of milk, during five months of which time she was carrying triplets.

Permit me to thank Mr. Fuller for calling my attention to the "series of experimental analyses conducted for five years under the auspices of the British Dairy Farmers' Association at Islington, by Dr. Voelcker, of the various breeds." This appeared in a paper read by Mr. M. C. Tisdall, before the Gloucester (England) Dairy Conference on the selection and breeding of dairy cattle.

The results of the "Islington Dairy Tests" for 1883, I happen to have and give them here:

NAME OF BREED.	Milk lbs. 1 day.	Fat pr ct.	Fat Solids in lbs in 100
Short Horn (Red Cherry)	51	3.85	1.96 6.60
Friesian (Magnie)	60	2.86	1.72 7.30
Guernsey (Gentle)	18	5.54	1.02 2.60
Jersey (Little Katie)	26	5.54	1.45 3.83
Devon (Myrtle 7th)	26	5.28	1.38 3.83

From the above it is seen that for butter, cheese, and milk together, the Friesian (Holstein), was the most valuable of all, as her milk produced more solids than any other, and nearly twice as much as the Jersey.

It was probably not Mr. Fuller's desire to call attention to this year in particular, but to

the entire five years, so I will give the results as presented by Mr. Tisdall, who says "the following is a summary of averages (for five years) of milk, given in twenty-four hours by the various breeds.

BREEDS.	No Sample.	PERCENT. Fat.	PERCENT. Solids.	POUNDS Milk.	POUNDS Solids.
Short Horn,	23	3.97	12.7	44.91	5.70
Jerseys,	19	4.26	13.6	29.27	3.98
Guernseys,	10	4.80	14.09	25.29	3.56
Dutch,	6	2.97	11.8	46.99	5.58

The cross bred cows are omitted, as they have no bearing on the comparative merits of full bloods, and the total pounds of solids added, as they were omitted by Mr. Tisdall.

From the above it is seen that the Dutch (Holstein), produced 1.6 lbs. more solids than the Jersey, and consequently, is over forty per cent. more valuable as a general dairy cow. The Holstein also produced more milk than any other breed, and 17.72 lbs. more than the Jerseys. This profit of more than forty per cent. per annum, made by the Holstein over the Jersey in ten years, would amount to four times as much, hence, the Holstein is worth four Jerseys.

As the fat globules of Holstein milk are small, more time is required for them to rise than those in Jersey milk, which are larger. If the fat was obtained from the cream, and it was removed from the milk before it had entirely separated, the low percentage of fat would be accounted for.

Mr. Tisdall says no herds of Dutch cattle simply, are known to be in this country (England), but general experience credits them with equalling or surpassing the Shorthorns in quantity, and this is supported by dairy shows returns."

From these returns and other reliable information, Mr. Tisdall gives another table, showing the "Relative Value of the Leading Dairy Tribes" as follows. It is not apparent after making the above statement, why Mr. Tisdall places, in this table, the annual yields of the Shorthorns at fifty gallons more than the Dutch.

BREEDS.	Average annual yield milk. Gals.	Av. Butter at 16.5d per lb. £ s. d.	Av. Cheese at 7d. cwt. £ s. d.	Av. Milk at 9d. per gal. £ s. d.
Shorthorns,	700	25-10-0	25-13-0	25-5-0
Jerseys,	520	17-8-6	17-5-0	19-10-0
Guernseys,	460	19-5-0	16-7-0	17-5-0
Dutch,	650	16-4-0	19-19-9	24-9-0

From the above table it is seen that although the Jersey as a butter cow excels the Holstein by £1-4s-6d per annum, the Holstein is superior to the Jersey for cheese by £2-14s-9d. per annum, and for milk by £4-19s-0d., or for butter, cheese and milk together, the Holstein excels the Jersey by £2-3s-1d. per annum, viz., over ten per cent. Ten per cent for ten years would be 100 per cent. Thus in her natural life, a Holstein would produce twice as much, and hence be worth two Jerseys.

This is estimating Jersey butter of equal value with Dutch, Holstein, or Friesland butter as it is known on the London market,

which is far from the case, as will be seen from the following quotations per cwt. of the London market, given in the Farmer of Jan. 25th, '86.

	1886.	1885.
Jersey,	80s to 110s.	80s to 110s.
American,	60s to 112s.	80s to 122s.
Friesland,	116s to 126s.	120s to 132s.

Taking the lowest quotations, the Friesland excelled the Jersey butter by 36s. and the highest by 22s.

Let these London Foreign Butter Market quotations for that date may be considered insufficient proof as to the comparative value of these butters, I give those reported in the Agricultural Gazette for Friday, Feb. 13th, 1886.

Danish, 1st quality.	1s. 1d. per lb
Danish, 2nd "	11d. "
Swedish,	1s. "
Kiel,	1s. 1d. "
Ostend,	1s. "
Normandy, 1st quality,	1s. 1d. "
" 2nd "	11d. "
Friesland (Holstein)	1s. 2d. "
Jersey,	11d. "

Though Danish and Normandy generally precede, Friesland butter heads the list on this date, and Jersey, as usual, is at the foot.

The merits of Holsteins, compared with other breeds, as shown by these results, are all based on what they have proven in England. Instead of placing the annual milk yield at 650 gallons, as Mr. Tisdall does, Holstein performances in America justify one in placing it at from 900 to 1,200 gallons, and upwards, for entire herds, and their butter records are far in advance of the English.

Let me again thank Mr. Fuller for calling my attention to such interesting dairy tests, and hope he may continue in his good work.
DUDLEY MILLER,

AT A SESSION of the Agriculture and Arts Association of Ontario, a deputation from Guelph urged the claims of that city to have the next provincial exhibition held there. Strong appeals were made in behalf of Kingston and Ottawa, but Guelph was successful. An application was made on behalf of the Ontario Veterinary College that graduates thereof should be entitled to the degree of D.V. M.S., the same as granted by American colleges, and it was decided to accede to the request, the degree to have retrospective effect. The report of the committee on prize farms recommended that three grand sweepstakes be offered for competition amongst those who have been awarded medals in the several districts of the province, the first prize to be \$100, the second \$60, and the third \$10, in plate or other articles that will be kept in the family in after years as a memento of the honor achieved, was adopted.

From a Wisconsin Authority.
UNIVERSITY OF WISCONSIN,
AGRICULTURAL EXPERIMENT STATION,
MADISON, WIS., June 27, 1885.

The Higgin Eureka Salt Co., New York.
DEAR SIR: Your salt is in every way satisfactory, and we shall continue to use this brand as long as it keeps to its present standard. Respectfully,
W. A. HENRY,
Professor of Agriculture

MILK RECORD OF AYRSHIRE HERD.

MAPLE KNOLL FARM, WALDEN, ORANGE CO., N.Y.

NAMES.	HERD BOOK No.	AGE JAN 1, 1885.	CALVED 1885.	DUE TO BREEDING, 1886.	DAYS DRY 1885.	WEIGHT MILK, 54.	WEIGHT MILK, 185.	Greatest yield consecutive day.	Bought first calf
Favorite 2nd.....	2373	14	April 13	Mar 20	57	7 112	77 751	8,113	
Maid of Walkill.....	6376	10	Dec. 29	.....	46	6 196	6 174	7,829	
Favorite 3rd.....	6371	8	Mar. 31	Feb 27	43	8 090	8 201	8,725	
Mistress Dolly.....	5926	7	Sept. 25	Sept 10	49	6 773	6 773	6,803	
Rossie.....	7208	6	Nov. 11	Oct. 15	47	4 256	7 063	7 063	
Lullie Douglas 4th.....	6369	5	Oct. 1	Sept 11	61	5 203	5 421	6,189	
Favorite 5th.....	6374	4	Nov. 29	.....	59	.....	4 718	5,691	
Rose Cherry.....	5960	3	Oct. 4	Sept 22	.....	.....	1 962	6 173	
Favorite 6th.....	6372	3	Nov. 19	Oct. 16	30	.....	5 795	6 173	
Favorite of Brookside.....	6370	3	Jan 4	Mar. 16	.....	.....	5 668	5 873	
Beauty of Walkill.....	7411	3	Oct. 20	Oct. 13	40	.....	5 723	5 766	
Thanksgiving.....	7412	3	Nov. 25	Oct. 16	38	.....	6 262	6 262	
Favorite of Walden.....	7414	2	June 6	Oct. 2	.....	.....	3 785	.....
Hugo Lassie.....	7721	2	Sept. 21	Oct. 6	.....	.....	2 351	.....
Favorite 7th.....	7413	2	Oct 15	Oct. 14	.....	.....	1 704	.....
Favorite Lily.....	7803	1	Dec. 20	.....	.....	.....	1 351	.....

The above record is from daily weighing of milk morning and evening and the weight recorded. In summer the feed has been pasturage, four to six quarts of wheat, bran, and fodder corn. In winter, hay and fodder corn, ten to twelve quarts of wheat bran, three quarts of wheat middlings, and sometimes one quart of cotton-seed meal. The cows are stabled all the time, turned out to drink twice a day, and are carded and brushed daily. The water that they drink is warmed, as is also the water that is put on their feed.

J. DEWITT KREBS,
Walden, Orange Co., N.Y.

THE DAIRY EXHIBIT.

TORONTO, March 12.—A special meeting of the directors of the Western Dairy-men's Association of Ontario, was held here to-day, when a committee consisting of the president, Mr. Ballantyne, M.P.P., and Messrs. Cleverdon, Lossee, Robertson, Parker and Caswell, were empowered to take whatever steps are necessary to secure a proper exhibit of dairy products at the Colonial and Indian Exhibition.

From a New York Authority.
HOUGHTON FARM,
MOUNTAINVILLE, Orange Co., N.Y.
Dec. 1, 1885

Extract from letter: "We keep Higgins' 'Eureka' always in store and use nothing else in salting our Butter."
HENRY K. ALVORD.

We have often thought that milk-vendors are far behind other tradesmen in making known the advantage to the community of a liberal use of the commodity in which they deal, and that they would individually and collectively benefit by freely advertising the highly nutritive properties of milk. A good plan, and one that would involve hardly any expense, would be to have printed at the foot of their weekly bills, or outside the covers of their sales books, some such note as the following, which recently appeared in "Chambers' Journal":—

Wherever milk is used plentifully, there the children grow into robust men and women. Wherever its place is usurped by tea we have degeneracy swift and certain. Dr. Ferguson, a factory surgeon, who has devoted a large share of attention to this subject, has ascertained, from careful measurements of numerous factory children, that, between thirteen and fourteen years of age, they grow nearly four times as fast on milk for breakfast and supper as on tea and coffee—No diet is so suitable for growing children as well cooked oatmeal porridge and milk, long the staple food in Scotch families, but now, in many instances, abandoned for diet very much inferior. Owing to its easy digestibility, it is of equal benefit to invalids, and more especially dyspeptics, who often regain health and pick up flesh at a wonderfully rapid rate on milk, or milk and good bread.

Of course the number and variety of such notes is without limit, and a free use of the large supply of them which have appeared in our pages from time to time, could be made by any person of ordinary intelligence. We have not copyrighted any of them, and shall be only too glad to see them applied to the purpose we have suggested, and are certain that the adoption of the plan would have remarkably beneficial effects in increasing the demand for milk.

SWEET SILAGE.

Perfectly sweet silage has been made by Mr. Fry (and by many others since he showed the way), by allowing the heat in the silo to rise above 125 degs. F. This he accomplishes by filling his silos without close packing, and by deferring weighting the mass for two or three days, until the temperature of the silage at a depth of about four feet from the bottom of the silo has risen rather higher than 125 degs. F. He then covers and weighs the silage. The plan generally adopted of applying pressure directly the silo is filled, results in the production of more or less sour silage; whereas by Mr. Fry's practice of allowing the heat of the closely-packed silage to rise to about 125 degs. or 140 degs. F. before covering the top of his silo, and then applying pressure, the production of sour silage is entirely prevented, and what Mr. Fry calls "hayng fermentation" takes place.

BRITISH DAIRY FARMERS' ASSOCIATION.

Monthly Council Meeting, held at 191, Fleet Street, London, E.C., Tuesday, February 2nd, 1886. Present: Mr. G. F. Roumieu (in the Chair), Mr. A. L. Alexander, Mr. W. Ashcroft, Professor Axe, Mr. G. Barham, Mr. E. C. Clarke, Mr. A. Dunlop, Mr. A. Fawkes, Colonel Curtis Hayward, Mr. James Howard, Professor Long, Mr. T. Nuttall, Mr. W. Simmons, Mr. A. Stapleton, Mr. E. C. Tisdall, Mr. A. Tisdall, M. J. Treadwell, Mr. Jubal Webb, Mr. J. Welford, Mr. F. J. Lloyd, P.C.S. (consulting chemist), and Mr. William C. Young, (secretary).

NEW MEMBERS.

The following new members were elected, and others were nominated.—
George Bravington, Littleton near Straines, Thomas Cook, Betlow Manor Farm, Herts; Benjamin White Crees, Etchinghampton, Devizes; George Fuller, Spa Farm, Dorton, Bucks; Thomas William Latham, Harlesford Farm, Tetsworth, Oxon; Herbert Percy Smith, The Gange, Pirbright, Woking, Surrey; Captain Harold Switbank, Denham Court, Bucks; Samuel Taylor, Haddon Hall, Suffolk.

The Chairman read the Report of the Journal and Finance Committees, both of which dealt with numerous matter of detail. The reports were adopted.

EXPERIMENTS.

Mr. E. C. Tisdall, Chairman of Experiments Committee, reported that the Sub-Committee visited Sudbury, near Derby, on January 27th, and selected thirty cows. They were further divided into three sections of ten each, of about equal milking capacity. The following daily ration of food for each animal had been agreed upon for the present; and instructions to that effect given to the bailiff in charge:—

- 20 " mangolds,
- 5 lbs. meadow hay, uncut.
- 5 " ditto, in chaff,
- 10 " straw chaff,
- 20 " grains,
- 2 " bean meal,
- 2 " maize meal, and
- 2 " palm-nut meal.

Ten quarts of boiling water to be poured over the mixture of chaff, grains, and meal twelve hours before use.

Mr. Tisdall also indicate the provisions made for weighing the cattle.

Mr. Nuttall stated the intentions of the Committee with regard to the superintendence of the experiments so as to ensure their reliability.

The report was adopted.

DAIRY RECORDS.

In the absence of Mr. Edwards, who had given notice of a motion on the subject, Mr. Nuttall moved:—"That the gold medal of the Association be offered for the best and most practical dairy record of a farm where not less than twenty cows are kept, extending over twelve months, and that the subject be referred to the Show Committee." This was seconded by the CHAIRMAN, and carried unanimously.

SCHOLARSHIPS.

A resolution, proposed by Professor Long, and seconded by M. James Howard, "That it is desirable to provide a scholarship and diploma for annual competition by members of the Association and others for proficiency in dairying," was referred to the Finance and General Purposes Committee for consideration.

GENERAL MEETING.

The annual report of the Council was prepared, and the general meeting of members was fixed for Tuesday, March 2nd, at two p.m., the Council to meet at noon the same day.

THE GUERNSEY COW.

BUTTER YIELD.

The extraordinary property which the Guernsey possesses in such a high degree in the deep colour of the milk, and consequent butter yield, has been often remarked upon, and it is this quality which makes her particularly valuable to introduce into a herd for the purpose of improving the colour of the butter. The milk of a few Guernseys will very perceptibly tinge the milk of a dairy of shorthorns. The quality of colour, so important in a dairy distinguishes the Guernsey above all other breeds.

The golden hue is, however, far more valuable as being indicative of sterling wealth, the milk being richer than that yielded by any other kind of cow, and yielding a larger proportion of cream and butter.

In the Island it is generally reckoned that a good average cow will produce one pound (18 ozs to the Guernsey pound), of butter per day throughout the year on the ordinary feed of the Island.

Few reliable tests of the butter yield of Guernsey cows have however been made, but Mr. F. W. Ledyard, proprietor of the very fine Fernwood Herd, to whom I am indebted for much information, has made some reliable tests of his cows, the yield varying from 15 to 23½ lbs. butter for seven days. He also states that the milk of newly calved cows will yield one pound of butter from 16 to 18 pounds of milk, and after milking some months, a pound from 10 to 12 pounds milk.

Sir John F. Leonard has in his herd some animals, which after calving give nearly 20 Imperial quarts, or 50 lbs. milk per day, yielding 20 POUNDS OF BUTTER IN THE WEEK.

At the Pennsylvania State Fair held in 1880, analyses were made of the milk of various breeds of cattle with the following results—

	Per cent. Butter Fat.	Per cent. Casein.	Per cent. Albumen.
Devon.....	5.57	3.261	.195
Holstein...	3.58	3.403	.205
Ayrshire....	3.89	2.656	.187
Jersey.....	3.91	2.687	.337
Guernsey..	5.50	3.723	.339

By this the Guernsey is seen to exceed all others in the qualities given above, with the one exception—that of the Devon—in the percentage of fat; but the Devon cow tested had been in milk four months longer than the Guernsey, which would naturally render the milk richer.

The average of five years tests of the various breeds exhibited at the Dairy Shows of the British Farmers' Association gives the following results on the quality of the milk—

	Per cent. Butter fat.	Total solids.
Shorthorns.....	3.79	12 7
Jerseys.....	4.26	13 6
Guernseys.....	4.80	14 09
Dutch.....	2.97	11 8
Crossbred.....	3.15	12.31

The Guernsey possesses an element of much value in its great

PREPOTENCY,

or power of fixing its characteristics when employed in crossing other breeds.

Although it is well understood that like begets like or the likeness of an ancestor, yet where there is one animal producing exact similitude, there are many that have not the prepotency to stamp their own individuality on the offspring. They produce to their family but not especially to themselves, and if they happen to be allied with animals with more prepotency than themselves, they will exert little or no influence whatever. But what invests cows or Bulls with this valuable power, purity of blood reproduced over and over again without deterioration in quality or impairments of strength from the more remote ancestry.

For this reason, the length of time during which a breed of cattle has been kept pure is of much greater value in breeding than is generally supposed.

Having been bred for generations on an island of only 24 square miles, the laws of which made it impossible for any admixture with other breeds to take place, the Guernsey may be looked upon as one of the oldest pure races of our improved varieties of cattle.

By the use, therefore, of a Guernsey bull on the ordinary stock of the country, a herd possessing most of the best qualities as butter makers may in a few years be obtained without going to the expense incurred by replacing the ordinary stock with pure bred Guernseys.

—A. C.

From the Winner of the Highest Award on Butter over New England and Middle States at the New Orleans Exposition.

MAPLEWOOD FARM, } MORRISVILLE, Vt.
R. B. LIVINGSTON, Proprietor. } April 6, 1885.
The Higgin "Eureka" Salt Co., 116 Reade Street,
New York.

MY DEAR SIR: I have used Higgin's Eureka salt in my dairy of fifty cows for the past three years, with unvarying and uniform success, giving entire satisfaction. My prize butter at New Orleans was salted with Higgin's Eureka Salt. Very truly yours,
F. B. LIVINGSTON.

MORE POULTRY.

"The first twenty years of my poultry experience were confined to the natural method, using hens alone. The next ten years, hens and incubators were used side by side in the same building. The first part of that decade the hens were victorious, Biddy corning out ahead every time; the latter part of the time mentioned, the machines took the lead and kept it. For the past six years I have used machines exclusively, the hens being kept entirely for egg production. I have grown annually for the last ten years from 3,000 to 5,000 ducks and chicks for the early market. This has been done in connection with and supplementary to other farm work.

My own experience has taught me that in growing poultry artificially, a yearly profit of 100 per cent can be easily made on all capital invested in the shape of buildings, machinery, stock, etc.

Here is my balance sheet for the year ended Sept. 1, 1883, on chicks alone:

Stock on hand, September 1, 1882:
314 pullets at 1.25 each..... \$392 50
Supplies and food of all kinds..... 751 31
95 gallons oil..... 7.60

Total expenses..... \$1,154.41

Stock on hand, September 1, 1883.
634 pullets and chickens..... \$536.50
1,616 dozen eggs sold..... 533.28
302 hens sold..... 314.75
1,431 chickens sold..... 1,100.91

Total receipts..... \$2,781.54
Net profit..... 1,630.13

This showing gives a clear profit per hen of \$5.20. The labor of caring for them is not charged nor is the manure credited. The care of this poultry devolved entirely on myself. While my men were milking and feeding stock in the barn, I cared for chicks and machines, and seven o'clock found me at work in the field. With the exception of a half hour in the middle of each forenoon and afternoon devoted to feeding chicks, I did my share of field work with the others.

I will now give an account of my little duck venture for 1885:

Stock on hand January 1, 1885:
42 ducks and drakes at \$1.50 each... 63 00
Feed of all kinds consumed..... 334.52
68 gallons of oil at 8 1-2c per gal.... 5.78

Total expenses..... \$403.30

Stock on hand, December 1st 1885:
206 ducks and drakes at \$1.50 each... \$ 309 00
Ducks sold..... 1,506 71
72 dozen eggs sold..... 61.00
121 lbs. feathers sold at 50c..... 60.50

Total receipts..... \$1,934.21
Net profit..... \$1,530.91

Or a profit of nearly \$44 to each duck. This profit might have been increased had I hatched rather than sold the eggs above mentioned."

"There are hundreds of farmers today who are burdened with toil and debt. They are still traveling in the old ruts and cannot be induced to clamber out. They will persist in raising the old complement of potatoes and corn, of growing the same amount of pork and beef, of making the usual quantity of second or third quality butter, and in keeping the same number of half-starved nude hens, and then wonder why they don't lay. They will not see that a pound of chicken or duck (which can be grown in three months at a far less cost than a pound of either beef or pork, and which when put upon the market will bring four times as much,) is the best crop for them to raise. There is absolutely nothing within the possibilities of farm industry that is capable of making so rich returns as poultry-growing when artificially conducted. Every farm should have its poultry department. It is far easier now to fence against poultry than against cattle, sheep, or swine, while the returns are four times as great as in either, with far less capital and labor involved."

JAMES RANKIN.

MEETING OF CHEESE CO.'S.

The annual meeting of the shareholders and patrons of the West Oxford Butter and Cheese Manufacturing Co., was held at the company's factory, for the purpose of receiving the auditor's report, and the election of directors for the ensuing year. On Mr. W. H. C. Wilson being called to the chair the meeting was called to order and business commenced by the reading and confirming the minutes of the previous meeting. The secretary called on read the auditor's report, when it was moved by Mr. G. H. Cook, seconded by Mr. T. Hirlop, that the report be adopted. On the motion being put, carried unanimously. The election of directors then followed, Messrs. J. Peers and Schell acting as scrutineers. The shareholders proceeded to vote by ballot, resulting in the election of Messrs. G. H. Cook, T. Hirlop, J. Jarvis, E. W. Uren and R. Peers as directors for 1886. Mr. Galloway, the company's salesman for the past three years, resigned, which is much to be regretted as Mr. Galloway has given general satisfaction, the prices obtained is sufficient proof that he had done his duty. Mr. G. H. Cook will be the company's salesman, and W. G. Francis, secretary. Mr. E. M. Scott was appointed auditor for the patrons. The make for 1885 exceeded 1884 by about five tons and would have been much larger had the prices been better.

The total amount of milk received was 3,226,027 lbs.

The total amount of cheese made 308,984 lbs.

Average amount of milk per lb. of cheese, 10.44.

Average price received, 8.11.

Total amount received for cheese, ..	\$25,995.35
Paid for milk drawing	1,673.31
Manufacturing	2,008.40
Boxes and scale boards	536.80
Amount paid patrons for milk ..	21,321.71

The business of the Bright Cheese Mfg Co. for the year 1885 is as follows:—2,607,385 lbs. milk; 255,292 lbs. cheese; 10,21 lbs. milk for lb. of cheese; average price for cheese, 8.469 per lb.; money received for cheese and whey, \$22,044.58; paid for hauling milk, \$1,763.95; paid for making cheese, \$1,478.92; paid for boxes, \$510.25; paid patrons, \$17,710.3. The annual meeting takes place on the 12th inst., when the new board of directors will be elected for the current year. The prospect of increased business is indicated by a desire of a large number of new patrons who wish to send their milk during 1886 to this factory. The price charged non-stockholders was 1 26-100c. per lb., and 1 45-100c. per lb. to stockholders; even at these low figures the stockholders have had necessary improvements made and paid for, with a good balance in the bank to carry forward the present year, and all indebtedness wiped off.

Factorymen send us the report of your year's business.

NOTES.

The regular annual meeting of the Stathallan Cheese Company was held on the 24th Feb. The report shows that the amount of milk received was 2,873,161 lbs.; amount of cheese made, 275,915 lbs.; average lbs. of milk to 1 lb. of cheese, 10.11; average price per lb. of cheese during the season, 8-67c. Although the price has been small, the patrons were well pleased to know that very few factories have done any better than this one; quite a number of new patrons have already applied to the directors to be taken in next season. Directors for 1886 are Messrs. D. Smith, W. Stewart, J. Jaques, A. Glaves and R. W. Parker, P. Dunn, cheese maker.

The 19th annual meeting of the shareholders of the Brownsville Cheese Company was held on Friday, 18th ult.

The abstract statement showed that the company did not charge more than 1½c. for the manufacture of cheese in any case. The report showed that 6,305,076 lbs. of milk had been received from the patrons, from which had been manufactured 606,095 lbs. of cheese, which had been sold for \$53,176.96.

The old board of directors, Messrs. E. B. Brown, B. Hopkins, John Fulton, A. L. Cook, and N. Cuthbertson were then re-elected. Mr. W. H. Brown was elected auditor on behalf of the shareholders.

The thanks of this meeting were tendered Mr. John Fulton for his able and careful management of the company's business during the past year.

Mr. J. D. Freeman asked if the resolution regulating the early delivery of milk on Saturday nights had been complied with, and if the move was successful. J. W. Steinhoff and Jas. Elliott replied that it had been very satisfactory, and thanked the patrons for complying with the resolution, as they were now able to complete their labors without working so much on Sundays.

The annual meeting of the Milverton cheese factory was held a few days ago. From the secretary's report we gather the following details: The amount of cheese manufactured was 82 tons; amount of milk received, 843 tons; average pounds of milk to a pound of cheese, 10 1/2; total amount of money received, \$13,530; average price per lb. cheese, 8½c.

A largely attended meeting of the patrons and friends of the Cold Springs Cheese Factory, was held at the factory on Tuesday, Feb. 23. The following items are selected from the report:—Total lbs. of milk received at the factory, 1,011,370; total number of pounds of cheese manufactured, 101,203; lbs. of milk to 1 lb. of cheese, 10 7-25; average price per lb. of cheese for the season, 8 11-20; average price for drawing milk per gallon of 10 lbs., 1 19-1000; the cheapest route was 9.10c. per gallon; the dearest route was 1 2-5c. per gallon of 10 lbs. milk. It moved by Jas. Smith, seconded by T. Burtch, and resolved, That the thanks of the patrons of Cold Springs cheese factory be tendered to Mr. Matheson, for the very satisfactory manner in which he has managed the business of the factory during the past season.

THE DAIRYMEN'S ASSOCIATION.

At the recent meeting of the N. S. Dairymen's association, held at Kentville, the following named officers were elected for the ensuing year:

President, Col. W. E. Sturatt, Paradise.

Vice-presidents, Col. W. M. Blair, M.P.P., Truro; R. W. Starr, Starr's Point; Leander Rand, Canning; C. E. Brown, Yarmouth.

Secretary and Treasurer, P. C. Black, Falmouth.

DIRECTORS.

For the County of Cape Breton, R. H. Brown, Inverness, Alex. Campbell, M.P.P.; Richmond, Jno. Morrison; Victoria, Hon. D. McCurdy; Antigonish, C. C. Gregory; Pictou, H. Townsend; Guysboro, Jas. Kirk, M. P.; Cumberland, Rev. A. B. Black; Colchester, Edward Blanchard; Hants, W. H. Blanchard; Halifax, W. C. Anderson; Annapolis, T. Whitman; Digby, Rev. Jno. Ambrose; Shelburne, Hon. T. Johnson; Yarmouth, Hon. L. E. Baker; Queens, R. H. Ford; Lunenburg, Hon. C. E. Church; Kings, R. W. Starr.

The association is growing steadily and is doing a good work. Amherst is the next place of meeting.—*Chronicle*.

PURE MILK.

Many milk dealers and farmers who have been considering whether to sell milk in the Warren Milk Jars or to continue on in the old way, figure up carefully what it will cost them to buy the jars, but they do not think to calculate what they save by using glass jars. Take a dealer who sells four cans of milk a day of forty quarts to the can; it is a well known fact that it is impossible to dip forty quarts of milk out of a forty quart can, if he gets thirty-seven quarts he is doing well; he pays for forty but is able to sell only thirty-seven quarts, the other three quarts are lost by over dipping or spilling, that is 12 quarts of milk he loses every day on 4 cans. Say the milk is worth on an average five cents a quart the year through, that would amount to 60 cents a day, and in 365 days or a year the loss reaches the amount of \$219, which would pay for all the glass jars he would need and leave him a balance over and with proper care still have his jars left, and better still he will have largely increased his business by pleasing his customers by this popular system of delivering the milk in glass jars.

BOOKS FOR BREEDERS.

HOW TO SELECT COWS: based upon the principles of selection of Guernon in which his system is simplified and explained, with the report of the Guernon Commission of Pennsylvania. By Willis P. Hazard. 20th thousand. 8vo 100 illustrations, paper 50 cts., cloth 75 cts. * * * New edition revised and enlarged, with condensed summary of the ten points for judging accurately, and account of the different breeds.

DISEASES OF LIVE STOCK, and their most efficient remedies, by L. V. Teator, M.D., and H. B. Miller, V.S. New edition, illustrated. 8vo cloth, \$2.50 sheep, \$3.00. * * * Highly recommended by Veterinary Surgeons, Physicians, Army Officers and Agricultural Journalists. Several hundred copies were ordered for use by the Veterinaries in U. S. Army.

FEEDING ANIMALS. The science of feeding treated in a thorough and practical manner by Prof. E. W. Stewart. 12 mo \$2.00. * * * The only and most thorough book on the subject. It will save its cost very quickly whenever followed by any intelligent farmer.

THE GUERNSEY AND JERSEY COW Full account of their origin, treatment on the Islands points, and best modes of rearing, breeding and feeding. By Willis P. Hazard. 10th edition, revised. 8vo cloth elegant, \$1.50. * * * This summary of information by the best writers on these dairy breeds is the only work on the Channel Islands Cattle, and should be in the hands of every breeder and owner of them.

FARMER'S FRIEND AND PLANTER'S GUIDE. A handy manual for reference. Illustrated; 12mo paper, 25 cts. * * * This comprehensive volume gives the full rules for the weather in 40 pages; how to care cows and horses, care of bees, live stock, poultry, in weirs, fruit, and vegetable gardens. Many valuable receipts for the farm, the household, the sick room, &c.

ON THE PRINCIPLES AND PRACTICE OF BREEDING, by Prof. Mies. 12mo. \$1.50. * * * The only work on the subject, but most excellent, and should be in every breeder's hands.

BUTTER AND BUTTER MAKING: especially of the finest kind that is so celebrated, and sold in the Philadelphia markets. By Willis P. Hazard. 12mo. 25 cts.

BREEDER'S HANDY HERD BOOK: a record of cattle, horses, pigs, poultry, etc., dates of birth, serving, calving, due to calve, points, color, markings, yield, etc.; full pedigrees. For 25 animals, 25 cents; for 60-70 cents.

Either book mailed free upon receipt of price, or the complete list sent for \$8.00.

Remit to

JAMES CHEESMAN,

Box, 1904, MONTREAL,

DAIRY CAPITAL IN GREAT BRITAIN.

In estimating the investment in dairy farming in the United Kingdom, an English authority puts the cows at \$100 each, making an aggregate value of \$350,000,000. About 200,000 men are employed on the farms alone, irrespective of those employed in town dairies and in the retail milk trade. The average cow yields 4,500 pounds of milk a year.

J. D. Bailey, of Marshfield, Vt.; gives an account of his dairying with one cow, from March 25, 1884, to March 1, 1885;

Cu	.....	\$2 79
Butter sold	.....	25 00
Butter used	.....	18 25
Milk used	.....	\$36 04
Dr.	.....	\$25 00
Hay	.....	7 00
Pasturing	.....	\$32 00
Balance in favor of Cow	.....	\$84 04

A JERSEY BULL FOR SALE.

SEA GULL DUKE

8391, A. J. C. C.

Three years old. Welcome Blood.

All his relations are in the 14 and 16 lbs. list. Full information and price from

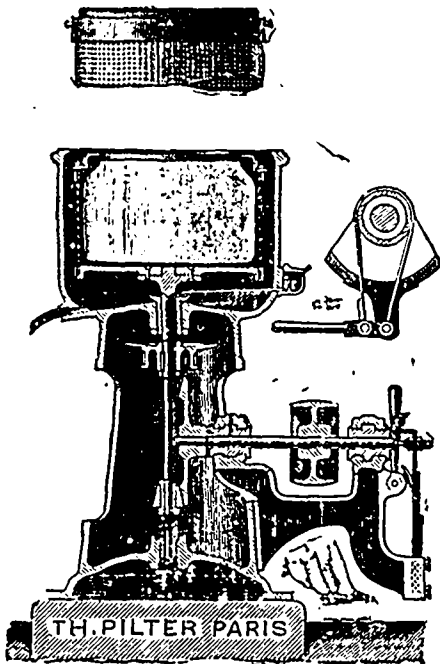
JOHN G. SAVAGE, McCord St., Montreal.

THE DELAITEUSE.

A CENTRIFUGAL BUTTER WASHER.

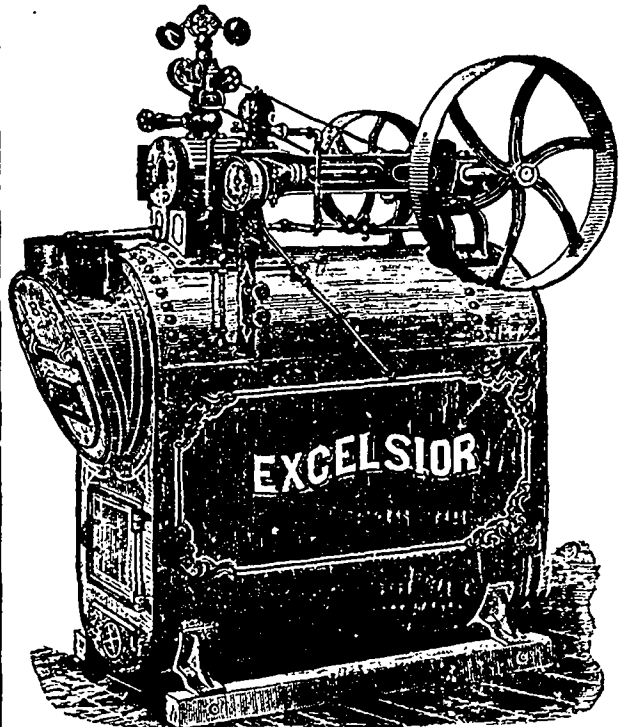
AWARDED GOLD MEDAL. DOES NOT INJURE THE GRAIN.

WASHES 250 LBS. PER HOUR.



For further information and prices write
JAMES CHEESMAN, Box 1964, Montreal.

The most economical Boiler and Engine for Farmers, Cheese Factories and Creameries.



Call and see it or write for prices.
THE MACHINERY SUPPLY ASSOCIATION,
669 CRAIG STREET, (Corner Bleury,) Montreal.

DO YOU KNOW

That Impure Salt is dangerous to health and that it ruins the quality of all Dairy and Food Products in which it is used?



But few persons appreciate the difference there is in the quality of Salt. To most persons "salt is salt," and anything possessing a saline taste is considered good enough to be used on the table or in butter and other food products. This is a great mistake. Salt has an affinity for the kidneys, and ordinary salt contains more or less Lime, Magnesia, and other impurities, which occasion stone in the bladder and other painful diseases. This has not been generally appreciated until of late years, when the British Government granted to Thomas Higgin Esq., of Liverpool, Patents for an improved system of salt manufacture which is generally admitted to be as great an improvement in this line as the process of Bessemer was in making steel. While the price is a little higher than of salt made in the ordinary way, it is the smallest item in the expense of a family, and even the poorest people can afford to use the best; indeed, using poor salt is like using poor thread in sewing good cloth, and no one who appreciates the danger of disease can afford to use common impure salt.

"EUREKA" SALT has no equal in Purity, Strength, Flavor, Uniform Grain of Crystal, Keeping Quality, Perfect Dryness and Cheapness. Unprejudiced Dairy Experts admit that the Best Butter and cheese cannot be made without "EUREKA" SALT. We have thousands of certificates from the most conscientious dairymen and factory proprietors, who will gladly endorse all we say. "EUREKA" SALT gives satisfactory results both to merchants handling it, and to consumers using it. TRY IT! EVERY FIRST CLASS GROCER KEEPS IT.

Respectfully submitted by

THE EUREKA SALT MFG. CO., Limited,

CHAS. F. BURGER, Manager.

MERCANTILE EXCHANGE BUILDING, New York.

Distributing Agents for Canada:

THOMAS LEEMING & CO. MONTREAL.

THE DAIRYMAN

A MONTHLY JOURNAL DEVOTED TO
EVERYTHING THAT PERTAINS TO DAIRYING.

The selection and care of Dairy Stock. The Construction and Operation of Creameries, Cheese Factories, and Private Dairies.

And the latest and most approved methods employed in making packing, and shipping butter, cheese and other products of the dairy.

SUBSCRIPTION.

The price of THE DAIRYMAN is \$1.00 per year, by mail postpaid, to any part of Canada or the United States.

ADVERTISING RATES.

The rate for single insertion is 16 cents per line, three insertions 35 cents, six insertions 60 cents, nine insertions 80 cents, and twelve insertions \$1.00 per line of 10 words (twelve lines make one inch). Where parties are not known at this office, orders should be accompanied by the cash or satisfactory references. Advertisements should be received by the first of the month, and earlier if possible; if sent later they may reach us in season to be inserted, but will often be too late for proper classification.

REMITTANCES.

Correspondents must not expect us to acknowledge letters containing remittances for subscriptions, unless some special reason exists for it. The receipt of THE DAIRYMAN is a sufficient notification that the money has been received. Remittances should be made by P. O. order, or by registered letter, or by draft drawn on other cities, and local checks, are subject to discount to pay expense of collecting them. When currency is mailed in ordinary letters, it is at the risk of the sender. Address,

JAMES CHEESMAN,
Box 1964 Montreal.

Every correspondent, in order to insure attention should give his full name and address, not for publication, but as a guarantee of good faith.

We invite correspondence from practical men, and all those especially interested in the occupations we represent, on subjects pertaining to dairying.

Subscribers can have the mailing address of their paper changed as often as they desire. Send both old and new addresses. Those who fail to receive their papers promptly will please notify us at once.

"The Dairyman" is printed for the Publisher by J. Theo. Robinson, No. 52 St. Francois Xavier Street, Montreal

From a Maine Authority.

PORTLAND, ME., Jan. 16, 1886.

I have used the Eureka Salt for the past three years in the manufacture of Jersey Butter, and am pleased to say that I consider it superior to any salt I have ever used.
O. P. MATTOCKS.

GANANOQUE CHEESE BOARD.—On Tuesday afternoon a meeting was held in Gananoque for the purpose of organizing the cheese board for the ensuing year. There was quite a number present, representing most of the cheese factories in the vicinity. The following officers were elected, being very little change from last year:—President, Jas. Birmingham; vice-president, W. F. Chapman; secretary, Joshua Legge; treasurer, A. D. McNeil; auditing committee, Alex. Richardson, Hiram Capes, J. G. Kavanagh. It was decided to meet every Friday afternoon, from 1 to 5 o'clock, commencing with the third Friday in May. A resolution was passed stating the importance of manufacturing a first-class and uniform quality of cheese for the English market; and requesting the Dairyman's Association to send their instructor to the factories in this section, with a view to obtaining all information in regard to the best methods of manufacture. A resolution was also passed, asking the Ontario Government to pass stringent laws to prevent the manufacture or sale of oleomargarine in this Province.

From a Texas Expert.

This is to certify that I have for years used the Higgin's Eureka Salt only, and that at thirty exhibitions I have taken twenty-eight first premiums at the fairs of Texas, and that I am not willing to exchange it for any other salt.
D. COULSON.

ALDERNEY CREAMERY. San Antonio, Texas.

AYRSHIRE BREEDERS' ASSOCIATION.

ANNUAL MEETING.

The report of treasurer, the late Hon. J. F. Brown, Providence, R.I., showed:

Balance on hand at the beginning of last year,	\$1,787 68
Receipts during the year	1,048 68
	\$2,835 81
Expenses during the year	274 20

Balance in treasury..... \$1,861 61

The secretary reported Vol. V. as issued, and about 550 entries recorded for Vol. VI.

J. D. W. French, president of the association, then delivered his annual address, which is as follows:

PRESIDENT'S ADDRESS

FELLOW BREEDERS. There has been no great advance in Ayrshire interests since our last meeting, although there are signs of progress. Any change must be for the better. The prices of other breeds are declining. There has certainly been no decline in the prices of Ayrshires, and I for one am inclined to believe that we have struck terra firma, and that we may now expect higher prices for first-class stock.

There is no better maxim in the world than this: "Breed only from the best;" and it ought to be rigidly enforced at the present time.

Wise breeders have been enabled to select the best animals at these sales and thus to enrich their own herds.

To sum up, the poorer animals have been destroyed or put beyond the recognition of the Herd Book, and the best animals have been placed in herds where they are likely to do much good. This dispersion of animals has caused much suffering and pecuniary sacrifice; but the general Ayrshire interest has not suffered, but has been positively benefited thereby.

At a late meeting in Chicago of the Holstein-Friesian breeders, Mr. S. Hoxie, of New York, gives a very fair statement of the rise and fall of breeds in popular favor and some of the causes. He says:

"Every milch breed seems to take a common course in its introduction and early history in this country. At first, few animals only are imported. These are selected with much care for the breeding purposes of those who import them. Their owners are not looking for immediate profits. Their rewards are in the future, not among the least of which is the public good that is to accrue from their enterprise. Slowly the breed grows into public recognition and esteem. Then follows an increase of importations, some of which are simply commercial ventures. As profits are realized in these ventures, strong competition in this business grows up. Naturally, all sorts of devices are resorted to to stimulate the market. Booms are created, an effort to supply the over-stimulated demand cattle of all degrees of merit are rushed into the country. Disappointments follow. Reaction naturally takes place, and the interests of the breed flag. This is a most critical time in the history of every milch breed that has been largely introduced into this country. At this time there is much danger that its reputation will be greatly injured. No degree of general merit in a breed seems to be able to sustain it at this crisis. Wisdom in the public management, and courage in the breeder alone can do this. An inert policy at this time is simply ruinous."

The dairy prizes offered by us have not received the notice they deserve. Breeders have stood aloof, not caring apparently to take the trouble to compete. Such a course is not to be commended, for an active competition in these classes would not only benefit the breed but also the breeder.

Milk records are on the increase, and some notable ones have been made.

Duchess of Smithfield has done honor to herself, to her breeder, and to her owner.

Her weight at the time the test was made was 1,128 lbs. Her yield in seven days was 463½ lbs. of milk, from which was made 19 lbs. 6 oz. of butter. Largest yield of milk, 74 lbs.; average yield, 66.25 lbs. per day; 23 93 lbs. milk to 1 lb. butter. The feed was 9 to 12 quarts wheat bran, 4½ to 6 quarts corn meal, 9 quarts ground oats, 3 to 4½ quarts oil meal and pasturage.

The *National Live-Stock Journal*, in commenting on this, says: "This cow is no doubt capable of yielding 15,000 lbs. of milk in ten months, and from this at 23 lbs. to one of butter, would yield 652 lbs. of butter."

The Duchess of Smithfield is without doubt a wonderful cow, but I do not propose, at least for the present, to regard her as a phenomenal animal.

The reserve capabilities of the Ayrshire cow are remarkable; but they need bringing out or developing, and that is what we breeders ought to do, as far as one can, without injury to the animals themselves. A cow may have great capacity for milk, and yet she may never show it to the fullest extent, for the reason that the skillful feeder is wanting. In all remarkable yields of milk and butter, credit should be given to the feeder as well as to the cow. Feeding, which brings out the utmost the cow can do under the limitations of health, I am inclined to think an art which comparatively few persons possess.

"Maggie Lander," five years old; weight, 875 lbs.; Owned by Ormiston Bros; dropped a calf March 31, 1885; test began April 1. Milk and food weighed every day. Feed, 4 lbs. ground oats, 2 lbs. corn meal, 2 lbs. wheat middling, with all the hay she could eat. In 30 days she ate 630 lbs. hay and 240 lbs. ground feed; total, 870 lbs.; average per day, 29 lbs. Hay at \$8 per ton, 21 lbs. per day = 8 cents; ground feed, \$20 per ton, 8 lbs. per day = 8 cents; total cost of food per day, 16 cents. Total amount of milk in 30 days, 1,174½ lbs.; average per day, 39 lbs. 2 oz.; amount of butter the last seven days, from 278½ lbs. of milk, 14 lbs. 5 oz., or 19½ lbs. milk to 1 lb. of butter, which shows milk of more than average good quality; the average being 25 lbs. milk to 1 lb. of butter. Maggie L. certainly carries out the idea of an Ayrshire cow producing much on comparatively little food, and therefore kept at a small expense.

We have also the day record of Juniper 4th 4378, owned by Mr. Fairweather. In May, 1883, she gave in one day, 44 lbs. of milk, which produced 2 lbs. 9 oz. of butter; 1 lb. butter to 17 lbs. milk, which is a very good showing, although a short record.

Other important records might be cited, but I mention these especially as they state the butter as well as the milk product.

Some notable dairy experiments have been made in Canada, both at the Ontario Experimental Farm, at the Provincial and also at the Industrial Exhibition at Toronto. The Ayrshire cow has appeared in all these tests, and has not done the breed discredit. In the words of V. E. Fuller, the celebrated Jersey breeder, "One must admire the noble manner in which the Ayrshire has come out at these trials, whose progress to popular favor, though not so much heralded as some of the other breeds, is sure and steady. In these experimental tests, the Ayrshire cow has been pitted against all the prominent breeds, and she has not only sustained her ancient reputation, but some new points have come out in her favor."

As the secretary has prepared some formulated statements in regard to these tests, I shall not dwell longer on them.

"A GREAT DAY FOR THE AYRSHIRES."

Such is the heading of an article in *Nat. Live-Stock Journal* of Nov. 3d:

"Thursday, Oct. 15, will rank as a red letter day in the annals of the Ayrshire breed of cattle. On that day the celebrated herd of Ayrshire cattle belonging to the Duke of Buccleuch was dispersed in presence of an immense assemblage of agriculturists, at Holystone, Dumfriesshire. Notwithstanding the prevailing depression in farming circles, the prices realized were most encouraging and perhaps unprecedented for this valuable race of cattle. The Duke of Buccleuch's herd was established about half a century ago, and it has been bred with care and skill.

"In recent years, the very best blood that could be obtained was added to the herd, and the weeding process toward unsatisfactory specimens was carried out with unsparring vigor. The result was that, although numerous, the individual animals in the herd reached a high standard of merit.

"The reason for parting with the herd was the determination on the part of the Duke of B. to keep at Drumlanrig only one breed of cattle, the Galloways. The bidding throughout was most spirited and the results of the sale much exceeded expectations."

164 animals were offered. The average for 48 cows was £29 4s 11d., the highest price being 74 guineas for Whinflower 3d 1139, 4 years old.

The average for 30 two-year-old heifers was £33 6s 6d.

The highest price being 52 guineas for Yellow Bear 6th.

The yearling heifers, 33 in number, averaged £23 9s. and 30 heifer calves averaged £14.

The yearling bulls reached the high average of £67 4s.

The highest price being 105 guineas for Bruce 2d 1166.

Thirteen bull calves averaged £32 6s 2d, one bringing as high as 50 guineas.

The average for 163 head was £27 11s. 1d., or about \$137.

Total, £4,491 7s. 6d.

"This cheerful sale will give the Ayrshires a spur.

"Careful breeding and selection, with a distinct aim in view, have made the Ayrshires what we now know it to be—one of the DEEP EST MILKING varieties in existence.

"The prices of cows of the breed, in ordinary circumstances, range from £15 to £20. Contrasting these prices with what were obtained at the Drumlanrig sale, it will be seen how successful that event was. At the recent London Dairy show an Ayrshire came out third in the milking trials. An Ayrshire cross got the Challenge Cup for animals of any breed or cross, and an

AYRSHIRE BULL GAINED FIRST PRIZE

in the class for any other breed than Short-horns, Jerseys, beating a splendid Devon and a very good Hereford.

"On the whole, therefore, Ayrshire prospects are looking up." The prices realized at the sale of Ayrshires at the Petes farm, in Southboro, Mass., in 1886, are, I believe, the highest ever obtained at auction in this country; 54 cows averaged \$214; 10 bulls averaged \$108.50; 64 head averaged \$197. There are other signs of encouragement in Scotland among the letters and discussions that are occasionally seen in the newspapers. A writer in the *North British Agriculturist*, speaking of the system of judging cattle, says: "In fact the prize milch cow is like a masher of the period—the one can hardly look over his collar, and the other does not

give much milk for fear of injuring the symmetry of her vessel. The result is that the buyers of prize animals are confined to the class who wish to have or to breed show-ring cattle.

"And all practical men who wish to improve their herds stand aloof, because their object is milk and milk alone. They, in fact, feel that they are more likely to injure than improve their stock by introducing prize strains.

"Let breeders breed for milk, and determine not to keep or breed from a cow which does not yield a certain quantity of milk in the year, containing a given proportion of cream. Let them use as stock bulls those only which are the produce of cows that comply with the above conditions."

"This would be good advice anywhere, but is especially applicable to the Scotch show-yard, where symmetry of form has too often the preference over qualities of more real and practical value to the farmer.

In the same Scotch newspaper, under an editorial heading of "Scotch Breeds of Cattle for America," the Ayrshire breed is noticed as follows: "As once it may be conceded that with dairying in the forefront there is only one breed native of Scotland which can be a great object to the American. That, of course, is the beautiful Ayrshire, whose milking properties are second to those of no other race when properly developed, and whose fattening qualities when dry are astonishing."

An Ayrshire steer is a kindly feeder, and becomes good beef, if well kept throughout, at 30 to 36 months, with a live weight of from 1,000 to 1,200 pounds.

"Records of milking tests with Ayrshires should satisfy Americans that, keeping in view their tendency to lay on flesh when dry, there is no breed preferable to it where dairying is the main object, and few, if any, so good. The average annual yield of milk per cow of the Ayrshire breed is fully 600 gallons. The returns of butter per cow annually have been estimated at about 250 pounds, and of cheese rather over 500 pounds."

At a meeting of the Scottish Dairy Association in 1884, Professor Sheldon of England, in a lecture, stated that "Ayrshire cattle were excellent milkers, giving richer milk than the Short-horns, and certainly more of it in proportion to their size." That Ayrshires would thrive on poor pastures where Short-horns would starve.

"He had at one time an Ayrshire cow which gave cream and milk for the use of the house, and two pounds of butter per day besides. She was a small eater. The one that succeeded her was a large Short-horn, which, after supplying the house with milk and cream, did not give one pound of butter per day."

This coming from English authority is of value, as there is a tendency in England at the shows and elsewhere to undervalue the Ayrshire and give the Short-horns undue prominence.

I have stated in times past that I thought there were as good Ayrshires in America as in Scotland, and I have not changed my mind in this respect, but I would not by any means discourage all importations, for, indeed, fresh blood, although no better than that at home is, sometimes, a positive advantage.

It has been suggested by some of our breeders that it would be a good plan to form a syndicate to import, say, twenty head of Ayrshire cattle, the best that can be found, and send out an agent for that purpose. Of course such an agent would have discretionary power to buy or not, according to the state of the market and the quality of stock offered for sale—at any rate, a report on the

present condition of Ayrshire cattle in Scotland would be expected.

It is doubtful if a venture of this kind would be a great financial success, but it is hoped, if undertaken, that it might be the means of adding some valuable animals to our herds, and, perhaps, of stirring up a greater interest in the breed.

I would propose that a special meeting of this Association be held at Chicago in November at the time of the Fat Stock show. A meeting in connection with this show might be made interesting and profitable. Some twenty or more agricultural societies of various kinds hold meetings in Chicago during the continuance of the Fat Stock Exhibition, and a great many persons are, consequently, brought together, some of whom might become interested in our work. In connection with this and other cattle shows, it would be well for us to consider the desirability of offering special prizes or medals, not only for cattle, but also for Ayrshire butter and cheese.

A larger demand for Ayrshire stock in the West would be of great advantage to our Eastern breeders, for then there would be a constant outlet for our surplus stock. That they are suitable for Western dairying both as thoroughbreds and grades there can be no doubt, only they should be bred of large size for that purpose—that is of at least 1,000 lbs. weight. A Canadian lately wrote me: "I had the pleasure a few days ago of recommending the selection of three car loads (of Ayrshires) to grade up the stock in our N.W. for dairying. As far as I know there is no animal better fitted for economical dairying at the foot of the Rockies than the Ayrshires. I think the Ayrshire men might with advantage do a little more 'booming' by bringing their facts more prominently into public notice. It has seemed to me that Ayrshire men were too satisfied with their work, and that they do not make as much of it as they ought." This statement and criticism coming from an outside party, and one competent to judge, should have weight.

It would seem right and proper that our association should express its sentiments and exert its influence in all matters connected with the production of milk and the making of butter and cheese, and for that reason I hope that resolutions may be passed both approving of all laws for a closer inspection of the milk supplied to our cities, and for the upholding of the highest standard possible as to quality, and also condemning the sale of butterine or oleomargarine as genuine butter.

Vol. V. of the Ayrshire Record has been published since the last annual meeting, bringing the entries of bulls up to 3884, and that of cows up to 8483.

From the Winner of the Highest Award on Dairy Butter at the New Orleans Exposition.

ELKHORN, WIS., April 13, 1885.

The Higgin Eureka Salt Co., New York:

Eight years ago I commenced a private dairy on the creamery plan.

I bought some Ashton salt, but was not suited with it. I saw some samples of your salt at Fort Atkinson, Wis., at a dairymen's convention, and sent to Chicago for six sacks, the first used in this part, and have used no other since, and think it the best to use.

I won the "Higgin Cup" two years ago at our county fair, and have taken the first premium on butter three years in succession at same place and give due credit to the salt.

Our prize butter at New Orleans was salted with Higgin's Eureka salt. Very respectfully,

J. G. FLACK.

From the Winner of the Highest Award on Butter over Southern States at the New Orleans Exposition.

JACKSON, MISS., April 6, 1885.

Manager Higgin's Dairy Salt Co.

DEAR SIR: I used Higgin's Eureka dairy salt in the butter that took first premium over Southern States at the N. O. Exhibition. I have never used any other salt in my dairy. Very truly yours,

(Signed)

JNO. H. ODENEAL.

A SIX YEARS' RECORD.

MILK RECORD FOR 1880.			
NAMES.	No.	Age.	Weight of Milk.
Lady Avondale 3d...	2625	7	5844
Rosa.....	3143	7	5935
Rosa Bonheur.....	3151	7	6065
Lily of the Valley.....	2734	7	5790
Ocean Belle 4th.....	3722	5	5031
Avona.....	4494	5	7950
Rosella.....	4497	5	7004
Ruth.....	4816	4	5158
Rebekah.....	4496	7	5276
Roxie.....	4498	3	6301

Average of cows for the year, 6035 pounds.

REMARKS.

The weighing of milk was commenced and continued through the year, simply to inform myself which were the most desirable cows to retain in my herd.

There was good pasture in summer 1 1/2 miles from the barn, poorly watered—and no grain. In winter a limited supply of water from a well, low meadow hay and two quarts of wheat bran until they calved, then good hay and eight quarts of bran, until a full bite of grass could be obtained, when the hay and grain were stopped.

MILK RECORD FOR 1881.

NAMES.	No.	Age.	Weight.	Milk, 1881	Largest 365 consecutive days record
Lady Avondale 3d, 2625	8	1210	6543	6587	
Rosa.....	8	1192	6085	7562	
Lily of the Valley, 2734	8	1115	5834	7467	
Rosa Bonheur.....	8	870	5827	6628	
Rosella.....	6	920	6163	7004	
Avona.....	6	1115	8154	8154	
Ruth.....	5	960	6587	8716	
Rebekah.....	4	935	5935	5925	
Roxie.....	4	1005	7599	7599	
Acorn.....	4	910	5523	5523	
Blue Ribbon.....	3	960	3693	3693	

Average weight of cows, 1026 pounds.

Average weight of milk, 6176 pounds.

REMARKS.

The feed was from the same pasture as last year, 1 1/2 miles from the barn, with an increased supply of water, but no grain.

In winter a good supply of running water, and good hay, from 1/2 to 3/4 bush. beets to cows in fresh milk, no grain to any until the spring calving, when as fast as they came in they were gradually worked up to six quarts wheat bran and from 1/2 to 3/4 bush. beets, until a full bite of grass, when all extra feed was stopped.

MILK RECORD FOR 1882.

NAMES.	No.	Age.	Weight.	Milk, 1882.	Largest 365 consecutive days record
Lady Avondale 3d, 2625	9	1200	6356	7622	
Rosa.....	9	1110	6460	7562	
Rosella.....	7	905	6525	7004	
Avona.....	7	1100	6347	8476	
Ruth.....	6	1130	7500	8453	
Rebekah.....	5	1020	6677	7612	
Roxie.....	5	1055	7920	7968	
Acorn.....	4	940	6272	6272	
Blue Ribbon.....	4	960	4994	4994	

Average weight of cows, 1046 pounds.

Average weight of milk, 6672 pounds.

REMARKS.

The summer feed is from the same pasture as before, with no grain, and in winter good hay, and from 1/2 to 3/4 bush beets, and from 6 to 8 quarts of wheat bran, and one quart of some heavier mixed grains ground together.

Cows due for calving have two quarts bran until they calve.

MILK RECORD FOR 1883.

NAMES.	No.	Age.	Weight.	Milk, 1883.	Largest 365 consecutive days record
Lady Avondale 3d...	2625	10	2210	6588	7622
Rosa.....	3143	10	1210	5047	7562
Rosella.....	4497	8	1015	6767	7004
Avona.....	4494	8	1115	5080	8476
Ruth.....	4816	7	1089	8682	8682
Rebekah.....	4496	6	1110	6005	7642
Roxie.....	4498	6	1065	7963	9191
Lady Kilmarnock 2d, 5142	5	1020	5769	5919	
Acorn.....	4492	5	1100	6681	6681
Blue Ribbon.....	5478	5	1080	5917	5917
Ross.....	4909	4	5470	5470	
Acme.....	5075	3	6170	6345	
Lady Ops.....	6028	3	5085	5085	
Queen Ayr.....	6029	3	7150	7150	
The Queen.....	6030	3	5150	5150	

Average weight of cows, 1100 pounds.

Average weight of milk, 6168 pounds.

REMARKS.

The feed did not vary materially from that of last year, except that a feed of from 2 to 4 quarts of wheat bran, according to the cow, was given daily through the summer.

The aim of the breeder of this herd has from the first been to produce cattle of good size, quiet disposition, and large milking qualities, and at the same time retain the Ayrshire type with increased length of teat.

MILK RECORD FOR 1884.

NAMES.	No.	Age.	Weight.	Milk, 1884.	Largest 365 consecutive days record
Lady Avondale 3d..	2625	11	1210	5510	7622
Rosa.....	3143	11	1192	6605	7562
Rosella.....	4497	9	1015	7303	7450
Avona.....	4494	9	1115	6870	8476
Ruth.....	4816	8	1089	9166	9166
Rebekah.....	4496	7	1110	7722	7793
Roxie.....	4498	7	1065	7616	9191
Lady Kilmarnock 2d. 5142	6	1020	5548	5919	
Acorn.....	4492	6	1100	6766	8031
Ross.....	4909	5	6787	6787	
Acme.....	5075	4	7632	7632	
Queen Ayr.....	6029	4	6660	7149	
Miss Rose.....	5540	3	5617	5893	
Ellen Rose.....	5536	3	5437	6897	
The Queen.....	6030	3	7384	7384	
Mrs. Twinney.....	6031	3	6402	6402	

Average weight of cows, 1102 pounds.

Average weight of milk, 6814 pounds.

REMARKS.

The feed was about the same as last year, except that about 1/2 bushel of ensilage was fed in place of roots; also about one spoonful of ground flax seed was fed daily in winter.

The cows are turned out three times a day to drink, and on pleasant days they remain out about three hours in the middle of the day. They are bedded with straw, and carded daily.

MILK RECORD FOR 1885.

NAMES.	No.	Age.	Weight.	Milk, 1885.	Largest 365 consecutive days record
Rosa.....	3143	12	1115	7105	7562
Myrtle Dell.....	3854	9	1075	6870	6870
Ruth.....	4815	9	1089	9256	10219
Rebekah.....	4816	8	1070	8338	8338
Doxy.....	4400	7	1040	5707	5707
Ross.....	4809	6	6952	7448	
Acme.....	5075	5	1110	7986	7986
Queen Ayr.....	6029	5	1130	6905	7149
The Queen.....	6030	4	1260	4287	7334
Miss Rose.....	5540	4	1023	6765	6765
Queen Ailsa.....	7511	3	3111	6675	
*Ayr of Edgwood.....	5628	11	1075	4070	
*Oasis Bruce.....	5631	10	1060	3159	
*Roxanne.....	5955	7	1050	5280	
*Helens Hebo.....	7116	7	960	3727	

*Bought May 1st.

Average weight of cows, 1080 pounds. Average weight of milk for full year, 7025 lbs.

REMARKS.

The feed was about the same as last year. No attempt has been made to discover what any of them would give from an increased system of feeding above what is deemed necessary for the highest condition of health for a breeding herd, and these records are interesting or valuable only in showing what the Ayrshire cow will do in a term of years in the dairy with a moderate amount of whole some food, such as is necessary and profitable for any common dairy of cows.

The following bulls have stood at the head of this herd.

- Sir Archie 1453, { Sir Roger 868, imp.
 { Alison 836, imp.
- Sir George 4th 1711, { Sir George 3d 1710.
 { Picture 1720, imp.
- Hebron 2083, { Royal Rose 2084.
 { Quess 2d 3120.
- Prince of Ayr 2282, { Harry 1178.
 { Queen of Ayr, 1766, imp.
- McDuff of Orwell 2408, { Kilpatrick 1854.
 { Myrtle Dell 3854.
- Duke of Westbrook 2860, { Prince of Ayr 2282.
 { Queen of Ayr 5,4466.
- Sibley 3511, { Prince of Ayr 2282.
 { The Queen 6030.
- Emperor 3355, { Gayarro 2428.
 { Duchess of Smithfield 4256.
- Rhosus 2771, { Edgwood 2d 2770.
 { Rosey 5629.
- Crown Prince 3590, { Sir Hugh 2582.
 { Duchess of Smithfield
 { 4256.

C. M. W.

ENSILAGE.

Major Alvord, of Houghton Farm, New York, in a recent address summed up his conclusions as to ensilage as follows:

Silos may be made of any building material, above or under ground, but must be water and air tight.

Several small ones are better than one large; and of the three dimensions, the depth should be the greatest.

An efficient silo can be built for a cost of from 25 cents to \$25 for each ton capacity; probably \$2 per ton is a fair estimate.

Silos can be filled slowly or quickly, and may be weighted or not, with no marked difference in result.

Any plant good for cattle food can be preserved in this way. Most farm animals prefer it to dry forage.

The best time to cut a crop for pitting is when it approaches maturity, and begins to decrease its water content. The cost does not differ from the cost by drying the same forage in a suitable season; but the fodder can be put in a bad season when the drying would prove a failure. Corn is the best forage for ensilage. The ensilage costs about \$2 per ton.

An acre of ensilage weighs about four times as much as when dried, but occupies one eighth to one tenth the space of the dry fodder.

The contents of the silo will differ in different years, without any apparent reason.

Fermentation in the silo is a destructive process. The result is a loss of

some of the carb-hydrates, with an increase in digestible nitrogen.

Cultivate the corn where it can have plenty of light, and bear ears; when it begins to glaze, and in dry weather it should be cut (lengths less than inch), and put in as quickly as possible; level, and cover with weights of 150 lbs. per square foot.

Ensilage constitutes about one-third, the ration dry fodder two-thirds. Three tons of ensilage is as good as one ton of average hay; 30 tons of ensilage and 20 tons of hay are as good as 30 tons of hay. There is no evidence that ensilage imparts any unpleasant flavor to meat or milk. A silo or two, not too expensive, is an economical adjunct to a farm, to preserve some crop that would otherwise be lost. The extensive use of ensilage is simply a question of convenience and economy.

THE PROVISION TRADE, 1885.

In the provision trade the year opened with large stocks of American and home cheese. As the spring advanced it became apparent that supplies were considerably in excess of any probable requirements that might arise. Prices soon showed a tendency to droop, and in order to effect a clearance considerable reductions were accepted. The immediate effect of this fall was to throw back the demand for new cheese, and when in time they came upon the market they met a lower range of prices than had ruled since 1879. A rise of about 10s. took place before the end of July, and notwithstanding that the arrivals from America have been much smaller than for some years, they have remained ever since at the rates then established. Stocks at the close of the season at this side are by no means large, and as a fairly brisk demand has sprung up for the finer grades, an improvement in prices is expected very shortly. The quantity of the lower grades of cheese imported from America this season has been very trifling, as the closing shipments of the previous season were sold at prices which could not cover expenses. The direct consequence of this has been that American Dairymen have practically ceased to make the low grades, and a higher standard of quality has been established. English buyers continue to show increasing preference for Canadian made cheese as compared with that produced in the States. The quality, as a rule, of the former has ruled much finer, and experience has proved that they keep much better than the latter. Quotations from Canada have throughout the year been 2s. to 4s. higher than those from the States.

Hams have been very unprofitable, and not a few dealers who laid in large stocks in the earlier part of the year, sustained serious losses when their goods were brought into competition with fresh supplies.

Lard has continued to decline in price throughout the year with few variations, which are attributable to reasons more related to class than general value. The year closes with prices at about the lowest point that they have touched during the last half dozen years. Stocks are small, and there is no indication of any desire on the part of speculators to handle it.

Butter has been a plentiful and relatively cheap commodity, and prices have gone through their usual gradations without any very striking abruptness. The year opened with Danish, Swedish and Holstein at 140s.

per cwt., and this figure was maintained for about six or seven weeks, when a decline of 10s. took place. This was soon afterwards followed by a steadier tendency, which continued throughout March, when the top quotation for new milk was 136s. April began with a decline of 8s., succeeded by a continuous weekly fall, till the middle of June, when the lowest point of the year was touched, finest estate grass butter being then only worth 106s. In July a gradual improvement ensued, and prices steadily advanced for the next three and a half months, when the highest figure for estate stubble butter was 140s. Towards the end of November and during December the fodder and hay productions began to arrive, and as the quality improved, the demand became more general, and prices steadily, closing at 120s. to 132s. per cwt. The quality of Danish and Swedish estate butter has not on the whole been satisfactory, and there have been numerous complaints of its being deficient in that keeping character or consistency for which it used to be famed. Danish factory butter, on the other hand, has been in much better favor, being of a solid and keeping quality. A good deal of American and Canadian creamery butter came forward this summer, but the quality generally of the New York shipments has not given satisfaction, they being either oily in flavor, or over-salted. Canadian creamery has, however, pleased much better and kept well. As regards the lower grades of American butter, such as dairy and ladle-packed, the sale throughout the season has been unsatisfactory. Irish has been plentiful all the year, and being unusually cheap, has met a good consumptive demand. Butter substitutes, such as butterine, have not been in great demand, owing to the low prices which have ruled for genuine butter. — *Grocers' Chronicle.*

CITY MILK STANDARDS.

If you will refer to the last annual report of the Boston milk inspector, you will see that the total number of samples analyzed was 4,230; official warnings issued, 993; cases of prosecution, 42; cases of final convictions, 23.

In regard to official warnings, I quote from the report: "This plan of warnings upon the first sample found to be below the requirements was deemed desirable for many reasons. If the seller was honestly ignorant of the quality of the milk, it gave him the advantage of the information, and he would look out for it in the future, and thus the real object of the law was attained in the easiest and pleasantest way possible. There seems to be a widespread mistaken idea of the reason for having a milk inspector. It is commonly considered to be to prosecute violations of the milk statute, while the real reason is, by him, to obtain pure milk, prosecutions being happily only one of the means sometimes necessary for the attaining of that end."

You will see from this that the chief object of our Boston milk inspector is not to send men to jail, but to give the people pure milk. Out of 993 warnings, it was only necessary to prosecute 42 persons, because the warning was sufficient to enforce the law.

Now, is the standard too high, when 951 out of 993 persons warned were able to comply with the law on being told to do so? Any lowering of the standard of 13 per cent. solids would give larger opportunities for adulteration, because the average of good milk is of this standard or above.

If you make the standard lower, pure milk can be adulterated more extensively, and still come up to standard of purity.

The accompanying statement, made by

Prof Babcock, the present milk inspector of Boston, will, I think, prove that the average of good milk contains 13 per cent. solids or more.

AVERAGE COMPOSITION OF MILK.

Showing the average composition of milk from the reports of the leading authorities of the world:

Authority.	Solids.	Fat.	Not fat.	Ash.
Average proposed by M. Bonnet and adopted at Paris, 1857.	13.00	4.00	9.00	.70
Average of a number of farms near Paris. Five districts (Adam).	13.10	4.10	9.00	.70
Report of the (1885) Paris Municipal Laboratory—Average of all authorities quoted.	13.30	4.00	9.30	.70
Babcock—Milk Inspector Boston, 1885. Eighty samples delivered by milkmen.	13.30	3.50	9.80	.70
Wurtz (leading French authority). Average of large number of analyses.	13.50	4.00	9.50	.60
J. Carter Bell. Average of 181 cows.	13.60	3.70	9.90	.76
New York Dairy Commissioner's Report, 1885—average of 295 cows.	13.73	4.21	9.52	.71
New Jersey State Board of Health—average of 85 dairies.	13.80	4.22	9.58	.65
Davenport—Average of 18 Native Cows.	13.82	3.84	9.98	.64
Poggiale—Average of 10 analyses.	14.00	4.30	9.70	.70
Average of a large number of analyses by Bouchardat.	13.30	4.10	9.20	.70
Davenport—Milk Inspector of Boston, 1884, average of 31 cows, (Grade Ayrshire).	13.32	3.70	9.62	...
Cameron—Average of 100 cows of the Russell Farm (England).	13.40	4.40	9.00	.70
Cameron—Average of 42 cows of the Agricultural Institute, Dublin.	13.40	4.60	9.40	.70
Davenport—Average of 3 dairies of 56 cows.	13.45	3.79	9.66	.66
Sharples—Report of American Academy of Sciences—average of 19 cows.	14.49	4.83	9.66	.66
Average of the above 16 authorities.	13.53	3.91	9.62	.68

During the month of November 100 samples of milk, from as many milkmen in the city of Boston, were analyzed at the Milk Inspector's office. Of these 10 proved to be adulterated, and were complained of in the Municipal Court.

The average of these samples, including the adulterated samples, was as follows:

TOTAL SOLIDS.....	13.01
FAT.....	3.37
SOLIDS NOT FAT.....	9.64
ASH.....	.62

If milk, of which 10 per cent. of the samples was known to be adulterated, averages 13 per cent. of solids, does this not prove conclusively that 13 is a fair standard for any honest milkman, or milk producer?

I admit that there are cows which give milk below the standard, but is it necessary to make a law for their benefit to the disadvantage of the consumer, who wants milk of the highest standard? Cows that habitually give milk with less than 13 per cent. solids are not desirable animals for the consumer, or for a conscientious farmer who wishes to supply the crowded denizens of our cities with the best article in his power.

J. D. W. F.

DAISY MORRISON 14035.

Three months after calving this cow was on the care two days coming from a part of my herd in the northern part of Vermont.

This journey reduced her milk flow to about five quarts a day. It increased rapidly on a feed of good hay, carrots, and two quarts of bran, and four quarts cornmeal, up to about 13 quarts a day. Five days before the test began the herdsman was directed to increase her grain rations as fast as the cow would safely take it.

Twelve days after her arrival, and before she was well on the increased feed her milk was set separately. The first seven milkings saved amounted to 47½ quarts, the cream from which made 6 pounds of butter. The next seven milkings amounted to 48 5/8 quarts, which made 8 pounds 10 ounces of butter. The third seven milkings, 53 7/8 quarts, made 10 pounds 8 ounces. The fourth seven milkings, 56 1/3 quarts, made 11 pounds 15 3/4 ounces. The last seven milkings was 64 1/8 quarts, and the cream made 13 pounds 12 3/4 ounces butter. It will be seen that the last 14 milkings, or seven days' milk, ending Jan 11, 1886, made 25 pounds 12 1/2 ounces of butter. The saving of the milk separate from that of the other cows was discontinued, in order to make repairs before any of the cream of the last 11 milkings was churned, and without any suspicion of the enormous butter yield of the last two churning.

These repairs were planned long before, and could not be postponed.

It is evident that on the grain ration the milk was not only increasing in quantity, but also in richness at the time the test stopped, as the yield of the last seven milkings was at the rate of 27 pounds 9½ ounces a week.

It took 9.85 pounds of milk to make a pound of butter.

The dam of this cow, Melia Ann, 5444, made 18 lbs. ½ oz. of butter in 7 days on pasture only.

The circumstances of the long car ride and shrinkage in milk just before the trial may have been just the preparation she needed to exceed her normal yield of butter, but Jersey breeders would think, but for the enormous yield, that this test indicates far greater butter capacity than has yet been proved.

J. H. WALKER.

SIX COW'S RECORD, 1885.

NAME	Herd No.	Age	Calved	Lbs. of Milk	1st Calf.
A. R. Ys Ms					
Zilla Douglas 3rd	5592	4	5 Oct. 18, '85	6928	Oct. '84
Alice Douglas	4593	7	7 Nov. 19, '84	6930	
Lady Milton	5777	4	4 Jun. 14, '85	6143	Jun. '84
Lady Avondale	2625	12	10 Mch. 2, '85	6005	
Queen of Ayr 2nd	3963	12	7 Aug. 15, '85	5950	
May Morn 3rd	4763	9	7 Mch. 11, '85	5948	

Feed has been good hay in Winter. Pasture three-fourths of a mile from barn in Summer. Also half a bushel of brewer's grains, and from one to two quarts of cottonseed meal daily, according to animal.

TEN YEARS MILK RECORD

Year.	Lbs. Milk	Remarks.
1876	6073	
1877	6148	
1878	5598	Grand total, 62,247 lbs.
1879	5759	Yearly average lbs., 6227.
1880	6598	Daily average lbs., 17 06.
1881	8353	
1882	6122	Has always been a regular breeder and now with calf.
1883	5411	
1884	6233	
1885	5950	

A NEW DAIRY SCHOOL.

In connection with the new and admirably equipped dairy for the Royal Agricultural college at Cirencester, Eng, we have pleasure in announcing that a professorship of "Practical Dairy Farming" has been offered to and accepted by Mr. James Long, of Graveley Manor, Stevenage. Mr. Long is well known as having made a special study of practical dairying and dairy farming in all its branches, both in England, and also on the continent. He is the author of two standard works, one on British Dairy Farming, and one on the pig, besides being, as our readers are aware, a valuable contributor on dairying matters to the leading agricultural journals. He is also one of the most active members of the Council of the British Dairy Farmers' Association. Mr. Long's lectures and demonstrations will embrace the entire range of the best home and foreign dairy practice and management, and the various important problems of dairy farming, combined with feeding and other experiments for its further development and success. We look forward to excellent results from this new departure at Cirencester.

MACHINERY ON GERMAN FARMS.—A recently published volume of Imperial statistics gives some interesting figures in relation to the machinery used on German farms. It appears that of 5,276,344 farms, only 391,746 use machinery at all. Of these, 836 use steam ploughs, 63,842 sowing machines, 19,634 mowing machines, and 374,057 use steam or other thrashing machines. Thus not much over 7 per cent. use machinery at all, and of these by far the larger proportion only the thrashing machine. Three-fourths of the whole agricultural industry use no machinery, 4,000,000 peasants dispensing with it altogether. The farms between 25 and 125 acres, numbering roughly 600,000, employing in round figures 213,000 thrashing machines.

AGRICULTURAL EXPERIMENTS.—At the suggestion of the Royal Agricultural Society, of England, the principal county agricultural societies are discussing measures for co-operating in experimental researches. A conference was held in Hanover Square, London, and proposals were made for conducting, in various parts of the kingdom, experiments which may test, on a practical scale and upon different soils, the conclusions of Rothamsted and Woburn as to manures and the manurial residues of foods.

IRISH CREAMERIES.—The Rev. Canon Bagot proposes, with a view of getting all Irish creameries to work on the same lines, that there should meet fortnightly or monthly in Dublin, and yearly in London at the Dairy Show, a central executive council composed of representatives from each dairy company. The business of this council would be to compare notes, and discuss matters of importance on the better carrying out of the factory system. He also suggests that it should have on its permanent staff the best dairy factory expert that can be got, who will be, in fact, a factory inspector. The council could also arrange if they saw fit, for opening depots in Dublin, Liverpool, London, &c., for the sale of Irish creamery butter and other dairy farm produce. Canon Bagot intends to elaborate his views on the subject in a handbook.

LORD VERNON'S DAIRY.—From the published statistics we learn that during November 364,596 gallons of milk were converted into 14,527 lbs. of butter, showing an average of 25.7 lbs. of milk to 1 lb. of butter. On the 23rd ult. the factory was lit by electricity for the first time. Extensive additions to the building are contemplated.

BOOKS RECEIVED.

The following books and pamphlets have been received during the month and will be noticed later on.

ARMSBY'S CATTLE FEEDING.

WILLIS P. HAZARD'S HOW TO SELECT COWS

WILLIS P. HAZARD'S BREEDER'S HERD BOOK.

ENSILAGE CONGRESS, FIFTH ANNUAL REPORT.

HON. LOUIS BEAUBIEN, PAPER ON SILOS.

W. R. & CO'S IMPROVED BUTTER COLOR

IF YOU REALLY WISH to use the very best Butter Color ever made, one that never turns rancid, always gives a bright natural color, and will not color the butter-milk, ask for Wells, Richardson & Co's, and take no other. Sold everywhere.

MORE OF IT USED than of all other makes combined. Send for our valuable circular.

WELLS, RICHARDSON & CO., MONTREAL

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MACHINERY Designed. Manufacturers and others having Machinery working unsatisfactorily, are invited to consult with us. References and Testimonials from Montreal Manufacturers shown.

IN ALL Countries where Patents are granted, we have experienced Agents.

All business strictly confidential.

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(BARRON BLOCK, ROOM 12.)

ELEVATOR ENTRANCE, 162 ST. JAMES ST. MONTREAL.

STRAITS 477 1/2 ST.

SEEDS

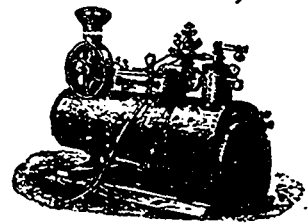
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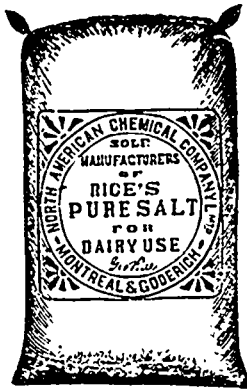
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GODERICH, ONT.

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UNSURPASSED IN QUALITY.

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



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Thoroughbred Poultry, Pigeons, Rabbits, &c., bought and sold. Poultry books, Feed, Fountains and other poultry requisites on hand. Eggs for hatching from good stock in season. Ground oyster shells, 5¢ per brl. of 225 lbs.; \$1.40 per bag of 100 lbs.; smaller quantities 1½¢ per lb. Bone meal, 3¢ per lb. Send for catalogue.

GEORGE PERRY, Jr.

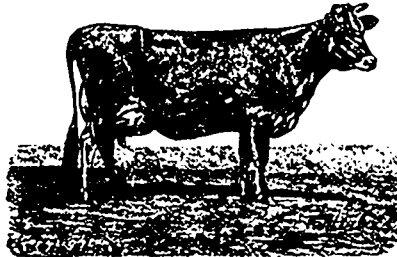
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The home of the principal prize-winners of the last five years. Twice secured 1st prize for Best Milk Cow of any breed; Milk being tested by the judges. Awarded Mr. Wells prize of \$100.00 for the best five cows for general purposes, and profit competition against all other breeds.

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Of ages ranging from calves to ordinary three-years old.
All bred from the best imported dairy prize herds.
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NOTE.—I continue to keep only Ayrshires, because they give more milk, butter and cheese for the feed they get than any other known breed. W. R.

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"Nixie L." 5155 H.H.B. Milk record of 76 lbs. per day; and 18 lbs. butter in 7 days. Winner of two First Prizes at Industrial Fair, Toronto, 1894.

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ASHTON'S SALT
from representative men.

FROM A FORMER MEMBER OF THE N.Y. LEGISLATURE.

STOCKHOLM DEPOT, N.Y., Jan. 12, 1886.
F. D. MOULTON & Co., N.Y.

Gentlemen:—We have used Ashton's Salt in sixteen creameries during the past year with entire satisfaction. We have used several other brands in years past, but find Ashton's takes the lead.

Yours truly, E. S. CRAPSAR, Mgr.

FROM AN EX-GOVERNOR OF VERMONT.

ST. ALBANS, VT., Nov. 18, 1885.
FRANCIS D. MOULTON & Co., N.Y.

Dear Sir:—We have used in our dairy, both on the Point Farm and on the Hill Farm, the Ashton's Factory Filled Salt for several years past. It gives us perfect satisfaction in every respect.

Yours truly,

J. GREGORY SMITH.

FROM THE LARGEST RECEIVERS OF MILK IN THE WORLD.

BOSTON, MASS., Oct. 20th, 1885.
Messrs. F. D. MOULTON & Co.

Gentlemen:—Yours of Oct. 16th, asking our opinion of Ashton's Salt, is at hand, and we would say in reply that for the last year we have used it altogether. Previous to that we had used three other kinds of salt, none of which, as we think, answers the purpose so well as Ashton's.

We favor the Ashton's for the reason that butter salted with it is of better flavor, and holds its flavor for a longer time. We have made on an average for this last year 1000 pounds of butter per day. In one word, we think the Ashton's is the best salt in use, and believe that when it is once fairly tried by an experienced butter maker, it will commend itself and satisfy the most exacting.

Respectfully yours, C. BIGHAM & Co.

FROM THE DOMINION OF CANADA.

MONTMAGNY, P.Q., Dec. 19th, 1885.
Messrs. F. D. MOULTON & Co.

Gentlemen:—I have the pleasure to inform you that I have been using the Ashton's Salt during all last summer, and that I intend to continue using it.

Yours respectfully, H. HEBERT, N.P.

All which is respectfully submitted,

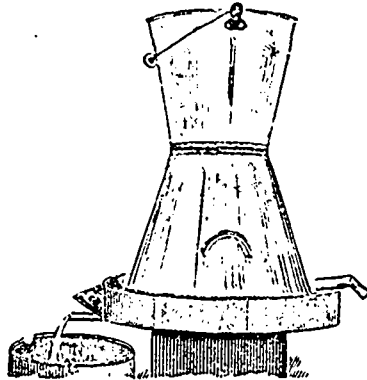
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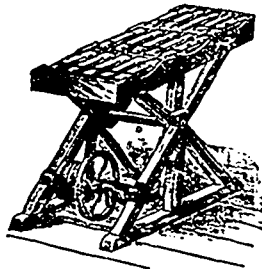
which strains, cools and aerates 600 lbs. of milk per hour, doing the work perfectly in each respect.



One cooler, without ice, will cool the milk of fifteen cows, or one hundred cows where ice is used. For prices and all information, address

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Creamerymen can do so by the use of CHERRY'S TRIP CARRIERS. No shortage from this cream. Saves its costs every month. It enables creameries to run during the winter at a good margin.

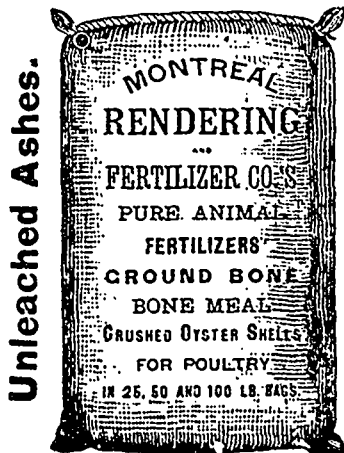
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Cherry's Imperial Cream Carriers

also received the first premium. Send for circulars, etc Satisfaction guaranteed.

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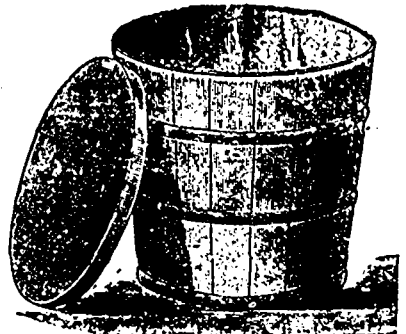


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SOLID COIN SILVER, 1 1/4 inch long, recommended by Vet Surgeons and Dairymen for Sore, Torn or obstructed Teats and Hard Milking Cows, sent post paid 60c. each, or \$2.00 per set of four tubes. Circulars free. GEO. P. FILLING, 101 So 10th St., Philadelphia, US

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For making Rugs, Tides, Hoods, Mittens, etc. Sent by mail, full directions. Price, \$1 Agents Wanted. Manufacturer of Stamped Rug Patterns on Burlap. Beware of intriguements. Send for Circular.

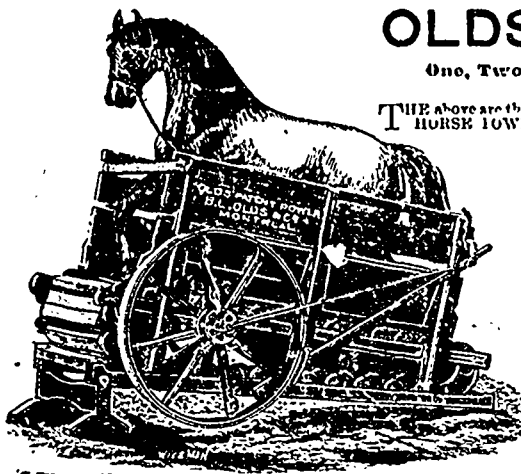
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Every improvement in them is the result of years of study, and hundreds of Farmers can attest to their durability and excellence. A large number of the one-horse kind are used in Factories where light power is required, and the ease with which the horse performs his work, and the compact style in which they are built, render them at once all that is desirable. Below we give a testimonial from one who has used them in connection with the Celebrated de Laval Cream Separator.

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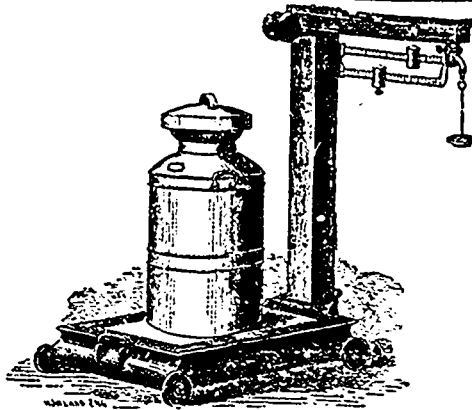
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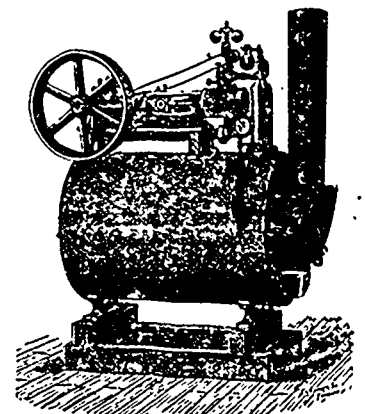
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BELTING WITHOUT RIVETS runs smoothest on the smallest of pulleys of churns and separators

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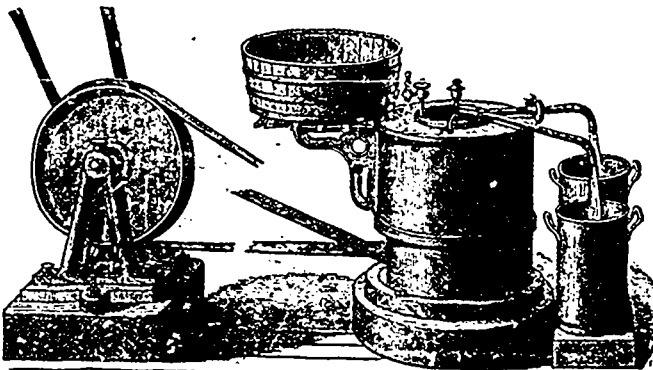
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Estimates given for complete outfits

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92 94, 96 & Wellington St., Montreal.

The New and Improved Milk Separator of Burmeister & Wain



TO THE PUBLIC.—We beg to inform the public that Mr. G. W. Walton's statement, in regard to the setting and working of the Burmeister & Wain Milk Separator is utterly false. Unnecessary expense was made by Mr. Walton to build the foundation and the machine never was properly set. According to Mr. Walton's own testimony, the same machine, although improperly set, ran splendidly during twelve months. He then began to tinker with it and threw it out of balance. In doing this, Mr. Walton had a private object in view. He is now agent for the sale of the De Laval separator, and interested in running down the Burmeister & Wain. The fact that over 20 of Burmeister & Wain's milk separators are now being successfully run by ordinary farmers of the Province of Quebec, is a glaring denial of G. W. Walton's statement.

WILL

Now strain from 1 400 to 1,750 lbs. of milk per hour. It is now in use in 12 of the largest creameries in Canada.

WHY

The large Burmeister & Wain is the only Separator fit to be used in creameries:

- 1st. One large Separator takes less space, and requires less power than two smaller ones.
- 2nd. Two large Separators will require far less care in regulating the speed and inflow in looking after than 4 or 6 smaller ones.
- 3rd. Two large Separators will cost less to buy, less to set up, less to keep in order than two smaller ones.
- 4th. It is the only Separator which will lift the skim milk 6 or 8 feet, thus saving the cost of a pump and the labor of pumping the skim milk into the patron's cans.
- 5th. It is the only Separator which allows to regulate the density of the cream while in operation.
- 6th. It is the only Separator to which Fjord's milk tester can be attached without extra cost. This tester must be used in all well regulated creameries, in order to distribute the proceeds according to the butter value of the milk.

THREE SIZES ARE NOW MADE.

- The A for large creameries.
- The B for large dairies and smaller creameries.
- The C for dairies of ten to fifty cows.

TESTIMONIALS.

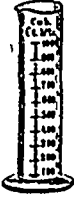
I have used two milk Separators of Burmeister & Wain, and made 40,000 lbs. of butter during the season 1888. From the first to the last day of operation they ran splendidly, and did not cost five cents for repairs.

I. SENESAC, Stanbridge Station, Que.

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H. C. PETERSEN & CO., P.O. Box 1379, MONTREAL.
Separators made by Garth & Co., 156 Craig Street, Montreal.

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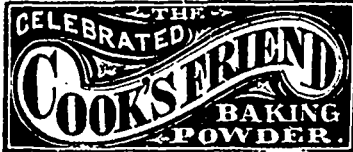
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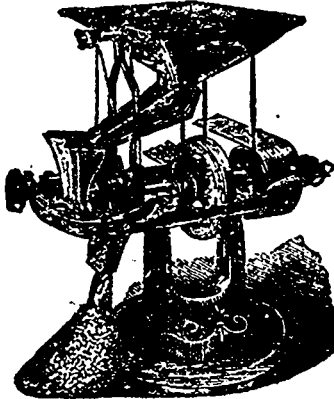
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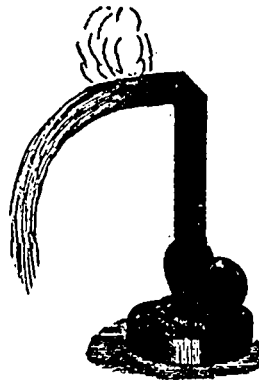
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