

BULLETIN
OF
THE DAIRYMEN'S ASSOCIATION
OF THE PROVINCE OF QUEBEC
N^o. 1.

To be published every month, from the 1st May to the 1st November.

SYNDICATES OF BUTTER AND CHEESE FACTORIES

TO THE PUBLIC.

On the 22nd January, 1889, the eve of the annual meeting, held at L'Assomption, the Board of Directors of the Dairymen's Association adopted the following resolution :

" Resolven : That, seeing the excellent results obtained by the organisation of a system of inspection and instruction in the factories by inspectors having under their control a small number of factories, and visiting them constantly during the course of the season, the Executive Committee of the Association should have an interview with the Hon. Commissioner of Agriculture for the purpose of praying the Government to encourage the formation of factory syndicates established with a view of providing themselves with inspectors engaged by the syndicates, and intrusted with the general superintendence of the factories composing these syndicates, by offering them a pecuniary aid, equal to the amount subscribed by the said factories towards the special objects of their system of inspection; provided that these syndicates be composed of at least ten and not more than thirty factories, which shall, between them, subscribe and pay a total amount of not less than \$150 and not more than \$300; and provided, moreover, that these grants be not paid over except on the recommendation of the Association, after a report has been made by the syndicates of the operations of each year."

On the fifth of February following, the above resolution was forwarded to the Hon. Commissioner of Agriculture.

On the 21st of February, 1890, a deputation met the Hon. the Premier at Quebec, and explained to him the importance of the principle set forth in the above resolution, praying the government to assist in the realisation of the project for establishing these syndicates. A memorandum addressed to Col. the Hon. Wm Rhodes, Commissioner of agriculture, at the close of the above interview, and dated 26th of February, showed that this idea had made considerable impression, and that the representatives of the dairy-industry were actively engaged in causing it to become practically useful: new resolutions, passed by the Association at Arthabaska; resolutions at the meeting of the association of the district of Bedford, Cowansville, January 10th, 1890, (without any previous understanding with our association); at Baie-du-Febvre, February 16th; at Danville, 14th January, 1890; at Huntingdon, 11th January; letters and telegrams received from all parts of the province, all giving their adhesion to this project; these are the proofs which this memorandum offered in support of its prayer.

The government yielded to this evident unanimity of feeling on the part of the public, and appropriated a sum of \$1,200 to assist the formation of the syndicates. Unfortunately, as the department of agriculture could not announce this fact until towards the end of June, there were only three syndicates established during the summer of 1890.

At the last meeting, at Sorel, after a long session, in which all the speakers once more argued unanimously and strenuously in favour of the project, it was decided to send a delegation the following day but one to meet the Hon. the Premier.

At this interview, were present: Mr. Bernatchez, M. P. P., president of the Association, the Hon. Mr. Justice Lynch, M. M. S. Fisher, M. P. P., Couture, M. P., Milton McDonald, M. P. P., Rocheleau, M. P. P., Owens, M. P. P., De Grosbois, M. P. P., England, M. P. P., Desmarais, M. P. P., Cameron, M. P. P., the Hon. J. G. Robertson, M. P. P., and Messrs. Foster, of Knowlton, Courtney, of Brome, Ewing, of Richmond, Dr. McEachran, V. S., of Montreal, and the secretary of the association.

This time, the success was complete. The Hon. the Premier promised the necessary funds, on condition that the association should take upon itself the superintendence and direction of the syndicates, and that the province should be divided by it into regional inspection-districts, the government reserving to itself the appointment of inspectors, who would have to pass an examination as to their fitness for the post before a board appointed by the association. The Premier promised to bring in a bill such as the delegates might think suitable to enable the association to carry out its objects under the conditions submitted.

These preliminaries being settled, those interested will herein after find:

1. The law passed at the last session on the subject of the syndicates;
2. The regulations adopted by the association, January 15th, for the working of the new organisation, forwarded to the Hon. the Commissioner of agriculture, January 23rd, and approved the same day by the Lieutenant-Governor in Council;
3. The programme of the examination to be passed by the candidates for the post of inspectors.

Will all that has been said and laid before the public, these documents are sufficiently clear to need no comment. To all interested therein, we recommend the attentive reading and study of them; they may then make use of the remarks we shall add at the end of this bulletin to organise themselves into syndicates in every district (*région*) of the province.

I

AN ACT TO AMEND THE LAW RESPECTING THE INDUSTRIAL DAIRY ASSOCIATION OF THE PROVINCE OF QUEBEC.

(Assented, 30th Dec. 1890.)

Whereas, under the provisions of article 1749 of the Revised Statutes, the Industrial Dairy Association of the Province of Quebec, was organized;

Whereas the said association has recommended the formation of syndicates for the purpose of securing a more prompt and complete diffusion of the best methods to be adopted for the production of milk, the fabrication of dairy produce and in general the advancement of the dairy industry, and the inspection thereof.

And whereas the said recommendation was approved by the

Committee on Agriculture and Colonization in a report which was adopted, by the Legislative Assembly, on the 23rd December instant.

Therefore, Her Majesty, by and with the advice and consent of the Legislature of Quebec, enacts as follows :

1. The following articles are added after article 1753 of the Revised Statutes of the Province of Quebec :

"1753a. The association, with a view of obtaining a more prompt and complete diffusion of the best methods to be adopted for the production of milk, the fabrication of dairy produce and in general the advancement of the dairy industry, may subdivide the Province into regional divisions, in which syndicates, composed of proprietors of butter and cheese factories and other like industries, may be established.

The formation and working of such syndicates are governed by the regulations made by the said association and approved by the Lieutenant-Governor in Council ; and such syndicates shall be under the direction and supervision of the association.

To such syndicates the Lieutenant-Governor in Council may grant, out of the Consolidated Revenue Fund, a subsidy equal to one half of the expenses incurred for the service of inspection and instruction organized therein, including the salary of inspectors, their travelling and other expenses directly connected therewith, but not to exceed the sum of two hundred and fifty dollars for each syn licate.

"1753b. The inspectors, including the Inspector General, are appointed by the Lieutenant-Governor in Council, and shall be experts who hold certificates of competence from the board of examiners mentioned in article 1753d.

The inspectors are to superintend the production and supply of milk, as well as the manufacture of butter and cheese in the establishments so organized into such syndicates, the whole in conformity with the regulations made by the said association and approved by the Lieutenant-Governor in Council.

"1753c. The salary of the Inspector General shall be paid by the association.

His duties shall be defined by regulations to be passed by the Association and approved by the Lieutenant-Governor in Council.

"1753d. A board of examiners may be appointed by the association for the purpose of examining candidates for the office of inspector the working of this board shall be governed by the regulations to be passed for that purpose by the association and approved by the Lieutenant-Governor in Council.

1753e. It shall be lawful for the Lieutenant-Governor in Council, to grant to the said society, an additional sum of one thousand dollars annually for the direction and supervision of the syndicates and for the maintenance and working of the boards of examiners above mentioned."

2. This act shall come into force on the day of its sanction.

II

SYNDICATES OF CHEESE AND BUTTER FACTORIES

BY-LAWS ADOPTED BY THE DAIRY INDUSTRY ASSOCIATION AND ASSENTED BY THE LIEUTENANT-GOVERNOR IN COUNCIL.

Copy of the report of a committee of The Honourable Executive Council, dated January 23rd, 1891, approved by the Lieutenant-Governor, January 24th, 1891. (Translation.)

No. 75.—On the approval of certain regulations of the Dairymen's Association.

The Hon. the Commissioner of Agriculture and Colonisation, in a memorandum, dated the twenty-third of January of the current year, 1891, recommends that the regulations of the Dairymen's Association of the Province of Quebec, a copy of which is annexed to the above memorandum, be approved.

Certified true copy.

(Signed)

GUSTAVE GRENIER,
Clerk of the Executive Council.

REGULATIONS OF THE DAIRYMEN'S ASSOCIATION.

Whereas, by a law passed at the last session of the Legislature of the Province of Quebec, the Dairymen's Association of the

Province of Quebec was authorised to create regional divisions in which the proprietors of creameries, cheese-factories, and other dairy establishments may form themselves into syndicates for the purpose of securing a more prompt and complete diffusion of the best methods of conducting the production of milk, the manufacture of dairy-products, and the advancement in general of the dairy-industry ;

And whereas the said association was, by the same law, entrusted with the duty of :

1. Establishing regulations for the formation and working of the said syndicates ;

2. Of directing and superintending the syndicates ;

3. Of establishing rules to define the duties of the Inspector General and of the inspectors who are to superintend the production of milk and the manufacture of butter and cheese in the establishments so organised into syndicates ;

4. Of appointing a board of examiners for the examination of candidates for the office of inspectors, and of laying down regulations for the working of the said board ;

And whereas, there is granted to each syndicate a sum equal to half the outlay incurred for the service of inspection and instruction organized in the syndicate, including the salary of the inspector, his travelling expenses, and other expenses relating directly to the said service, but which sum granted must not in any case exceed \$250 (two hundred and fifty dollars) for each syndicate ;

Whereas there has been granted to the said association, besides its subsidy and other ordinary concessions, an additional sum of \$1,000 (one thousand dollars), for the expenses necessary for the direction and superintendence of the syndicates, as well as for the maintenance and due working of the board of examiners, above mentioned ;

The said association constitutes, as follows, the programme of the formation and working of the syndicates, of their direction and superintendence, of the manner of conducting the proceedings of the board of examiners, and of the duties of the inspectors :

I

DIVISION OF THE PROVINCE.

The province shall be divided as follows, for the purposes of the new organisation :

a. Syndicates of cheese-factories or of cheese-factories and creameries :

No. of the

division.

Counties comprised in the division.

1. Gaspé, Bonaventure, Matane, Rimouski, Témiscouata.

2. Kamouraska, L'Islet, Montmagny, Bellechasse.

3. Dorchester, Lévis, Beauce.

4. Lotbinière, Mégantic, Arthabaska.

5. Nicolet, Yamaska.

6. Drummond, Richmond, Veie.

7. Sherbrooke, Stanstead, Compton.

8. St. Hyacinthe, Bagot, Richelieu.

9. Rouville, Iberville, St. John's.

10. Shefford, Brome, Missisquoi.

11. Verchères, Chambly, Laprairie, Napierville.

12. Beauharnois, Châteauguay.

13. Huntingdon.

14. Saguenay, Lac St. Jean, Chicoutimi, Charlevoix.

15. Portneuf, Quebec, Montmorency.

16. Three-Rivers, Champlain, St. Maurice, Maskinongé.

17. Montcalm, Joliette, Berthier, L'Assomption.

18. Hochelaga, Jacques-Cartier, Laval, Terrebonne, Deux-Montagnes.

19. Argenteuil, Ottawa, Pontiac.

20. Vaudreuil, Soulanges.

b. Syndicates of Butter-Factories.

As any limitation of territory would be a hindrance to the formation of syndicates of butter-factories on account of the small number of such existing in the province, liberty may be granted them by the association to organise themselves in accordance with the following regulations ; and the united counties in which such a syndicate shall have been formed shall constitute a territorial division for all the purposes of the present regulations.

11

DIRECTION AND SUPERINTENDENCE OF THE SYNDICATES.

1. The association shall direct the working of the syndicates.
 - a. By means of a fortnightly or monthly bulletin published during the season of manufacture, the prospectus-number of which will be published at once, and distributed among the old and new members of the association and those of the public who are interested in the dairy-industry; this bulletin shall contain, especially, instruction and advice to farmers, producers of milk, patrons of factories, to inspectors and makers of cheese and butter, relating more specially to the time of the year following the issue of each number; it shall also contain general information in connection with the dairy-industry.
 - b. By means of the school-factory of the association, whose work shall be conducted with a view to the new organisation.
2. The superintendence of the syndicates shall be exercised by the association:
 - a. Through the Inspector-general and the inspectors of the syndicates, whose duties and offices will be defined hereafter,
 - b. Through its ordinary officers as regards all private or public communications it may have to make to the representatives of the syndicates or to the representatives of the factories syndicated.
3. The association does not pretend to exercise any control over the interior management or the financial arrangements of the syndicates: it will suffice, if the latter conform to the present regulations to entitle them to be considered as having accepted the direction and superintendence of the association.
4. The direction and superintendence of the association shall be exercised with a view to securing, especially in the syndicated establishments:
 - a. A regular attention to the testing of the patrons' milk in order to obtain from them milk of the best quality, neither skimmed, nor watered, nor adulterated in any way;
 - b. A scrupulous attention to the general keeping in order of the factories, and to the maintenance of cleanliness therein;
 - c. Good quality and uniformity in the products manufactured;
 - d. A uniform system of book-keeping, sufficient to insure the exactness and integrity of the operations of the year which each factory will have to furnish to the association.

III

ORGANISATION AND WORKING OF THE SYNDICATES.

1. A syndicate shall be constituted by the associating together of creameries, cheese-factories, or other dairy-establishments, to the number of not fewer than (15) fifteen, or more than (30) thirty; it shall have for its aim the spreading over the division in which it is formed of the best methods of producing milk and of manufacturing dairy products; it may also aim at adopting and exercising all measures calculated to protect such interests of the patrons and proprietors as are to the general advancement of the dairy-industry: the proprietors or representatives of the syndicated factories shall for that purpose engage to support between them, in a proportion left to their discretion, the expense of the hiring of one or more experienced inspectors, who shall superintend the production and the supplying of the milk as well as of its manufacture into cheese and butter in the syndicated factories. The inspector shall be under the direction of the Dairymen's association, under the conditions hereinafter enumerated, and the syndicate shall conform to the present regulations.
2. The syndicates shall organise, as much as possible, by the beginning of the manufacturing season.
3. The syndicate shall organise by the signature in duplicate of the proprietors or the representatives of the factories who wish to form themselves into a syndicate to a declaration, on a printed form, which shall be furnished by the association, and a duplicate of which shall be sent without delay to the secretary of the association, who shall acknowledge its receipt.
4. In each territorial division, syndicates composed exclusively of cheese-factories or of creameries, or of creameries and cheese-factories, may be established.
5. If in any division there be not found a sufficient number of factories whose representatives desire to form a syndicate, these factories may agree with those of a neighbouring division to form a syndicate, or to become part of an already existing one.
6. Every factory shall have the right to ask for admission into the syndicate of its division.
7. Every syndicate shall have the right to prevent any factory

of its division from uniting with a syndicate of a neighbouring division, except in the case provided for by the following article.

8. For special reasons, the association shall be empowered to allow certain factories of a division to unite with the syndicate of a neighbouring division, provided that this permission hinder not the formation of a syndicate in the former division.

9. The representatives of the factories associated into a syndicate shall name a president, a vice-president, and a secretary-treasurer, who shall be the officers of the syndicate, and whose address shall be given to the association; all official correspondence shall be carried out by the medium of the secretary-treasurer.

10. At the end of each season, the syndicate shall render an exact account, certified by its secretary-treasurer, of the salary paid to its inspector, his travelling and other expenses, in direct relation to his duties of inspection, such as, hire of carriages, railway and steamboat fares, board, stationery, postage, purchases of instruments for the inspector's use, &c., &c.

11. As the government grant is used specially for the service of inspection, this grant in no case shall exceed the half of the genuine amount of the expenses alone just mentioned, provided that this half do not exceed two hundred and fifty dollars (\$250.00); and the payment thereof shall only be made at the end of the dairy-season, after the report mentioned in the preceding article shall have been made to the association by the syndicate.

12. A subscription shall be paid by the proprietors, or by the representatives of each factory, to the provincial dairymen's association or to the dairy association of the district in which the syndicate is formed, in order that the makers or the directors may be kept *au courant* of the work of the association; moreover, they shall forward to the provincial association a complete certified report of the operations of their factory according to the official form adopted by the association; which report shall not be made public except by consent of those therein interested.

IV

OF THE INSPECTOR-GENERAL AND THE INSPECTORS OF SYNDICATES.

1. The Inspector-General and the inspectors of syndicates are appointed by the Lieutenant-Governor-in-Council; but in neither case will any one be appointed until he shall have previously undergone an examination sufficient to establish his qualifications before the board of examiners of the association. The inspector-general shall be paid by the association, and the other inspectors by the syndicates.

2. The duties of the inspectors belonging exclusively to the teaching of the best methods of the production of milk and its proper supply to the factories, the manufacture of dairy-products, correct accounts, and the orderly management of the factories, these officers shall carefully avoid meddling with any troubles, with which their duties have no concern, whether they arise between neighbouring factories, between buyers and sellers, or between patrons and proprietors. They must, under pain of immediate dismissal, observe most guarded discretion in regard to all matters they note in the exercise of their duties, and reveal them to no one except to the society or to the officers and servants of the factories concerned.

§ 1. OF THE INSPECTOR-GENERAL.

1. The Inspector-General is the representative of the association accredited to the proprietors, the makers, and the representatives of the establishments under syndicates; all the instructions, therefore, he shall give, with the approbation of the association, are to be observed.

2. Before the opening of the season, or even during the season, if he see fit, or if he receive orders to that effect from the association, the Inspector-General shall call together the inspectors of syndicates, by groups, at the school-factory of the association, or at some other factory, and, keeping them there a few days, instruct them in their duties and in the best methods of manufacture.

3. After the opening of the season, the Inspector-General shall keep himself in communication with the inspectors of syndicates, by going at different times to pass two or three days alternately with each of them, to ascertain the efficiency of their services, their attention to instructions given, and the general good management of the factories they have in charge. In these visits, the Inspector-General will not be so much bound to visit the factories in particular, as to follow the steps of the inspectors in their ordinary duties.

4. The Inspector-General shall lend his aid to the working of

the school-factory, which he shall visit, taking it in turn with the syndicates.

5. The Inspector-General shall keep, in duplicate, a special note-book, in which he shall insert, day by day, all the observations he makes on the work of each of the inspectors, and on the general management of their factories; these notes shall be regularly communicated to the association, in time to be printed in each number of the bulletin, in which everything of public interest shall be inserted; the Inspector-General shall also keep a daily account of his travelling and other expenses.

6. With the consent of the association, the Inspector may visit the model establishments of this province or of Ontario, for the purpose of studying and of publishing any new process of working which may have passed into the current practice.

7. At the end of the season, the Inspector-General shall prepare a complete report of his work, giving a condensed statement of the observations he has made; this report shall be in two parts: one containing matters interesting to the public, the other, private notes on the work of each of the inspectors.

§ 2. OF THE INSPECTORS OF SYNDICATES.

1. The inspectors of the syndicates are their servants, and as regards questions of interior management, such as wages, payment of expenses, &c., are under the control of the officers of the syndicates.

2. As regards the performance of his duties, the inspector of a syndicate is under the direction of the association, and he must strictly conform to the instructions received from its officers or from the inspector-general.

3. The wages, travelling and other expenses of the inspector are to be paid by the syndicate.

4. It is obligatory on each inspector to attend all the meetings called together by the Inspector General.

5. After the meeting convoked by the Inspector-General before the opening of the season, the syndicate-inspector shall convoke his makers in one of the earliest opened factories, and shall repeat to them all the information he has received from the Inspector General.

6. In order to learn as soon as possible how far his makers understand their business, the inspector shall visit as quickly as possible all the factories he has in charge; this done, he shall devote himself to the assistance of the least skilled makers, passing a day with each of them; later, he shall visit those whom he thinks the most skillful.

7. After having thus made himself acquainted with the situation of affairs, and having helped each, in proportion to his needs, with his assistance and advice, the inspector shall arrange his visits so as to make a regular routine journey from factory to factory.

8. After or about the 1st. June, the inspector shall so divide his work that between two visits made to the same factory no greater number of days shall elapse than there are factories in the syndicate.

9. Unless prevented by distance, communication, or other hindrances, the inspector shall be present every morning at some one factory, to receive the milk in company with the maker, and shall test samples of each patron's milk; he shall note the result of each test in a special memorandum-book, which shall be preserved and handed over to the association at the end of the season; the inspector shall always have with him on his journeys good instruments for testing milk with which the syndicate shall provide him.

10. The test of the milk, its delivery in good condition, its manufacture, the general state of the factories, the accounts, shall receive the constant attention of the inspector, that nothing in any factory be neglected or allowed to remain in arrear.

11. The inspector shall receive from the association, a special note-book, in which shall appear all the observations made in the course of his inspection; from it he shall extract and forward a résumé to the inspector-general or to any other officer who shall be indicated to him by the association. This note-book shall be sent in to the association at the end of each season.

12. The inspector shall daily note down all his travelling expenses, and give in the details once a week to the secretary-treasurer of the syndicate; adding the list of factories visited, and indicating the probable route of his next week's journeys, in order that the secretary-treasurer may, if he desire it, communicate with him.

13. On pain of instant dismissal, the inspector shall communicate to nobody, unless it be to the Inspector-General or the secretary of the association, his observations on the factories and the work of the persons employed in them; still, he may, at the

request of the proprietor, the maker, or the president of the directors of any factory, communicate to such persons the tenor of such notes of his as concern that factory.

14. In all cases, wherein he shall see need of making observations, either to the patrons in regard to the supplying of the milk, to the maker about his work, or to the proprietor about the fittings of his factory, the inspector shall first of all address the person in fault privately, by letter or otherwise; it is only after having ascertained the existence of serious neglect, or of evident evil intention, that the inspector shall warn the party or parties to whom the ascertained bad state of things will cause injury. In very serious cases, the inspector shall avail himself of the advice of the Inspector-General or of the officers of the association.

15. The inspector should be deeply impressed with the importance of the most guarded discretion, not only in regard to the foregoing cases, but in all the details of his duty; a serious infraction of this rule may be punished by the withdrawal of the certificate of competence granted by the board of examiners.

V

OF THE BOARD OF EXAMINERS.

1. The Board of Examiners shall be composed of three members and a secretary appointed by the board of directors chosen at the annual convention, or about that time.

2. This board shall settle, and publish immediately, a programme of the examination to be passed by the candidates for the office of inspector; to give them a right to a certificate of competence; it shall, at the same time, give the date and the place of the examination, and mention the references to be furnished by the candidates, and the other formalities to be gone through before admission.

3. To those who pass a sufficient examination the board shall give a certificate of competence; this may state the degree of success obtained—pretty well, well, or very well—and it shall be either provisional or definitive; the provisional certificate will be good for only one year, and the bearer may be called upon to pass another examination, either in all the subjects of the programme, or in certain specially reserved subjects.

4. The board of examiners shall, without delay, make to the Honorable Commissioner of Agriculture and Colonisation a detailed report of the result of the examination, containing specially the names of the candidates and of those who shall have received the certificate, with the degree of success obtained.

5. Even the definitive certificate of competence may be withdrawn by the board of directors of the association from each inspector who shall be guilty of a serious breach of the rules, or who, for any other grave cause, shall be considered unfitted to discharge his duties properly.

6. If the number of candidates be not sufficient to warrant the holding of the examinations in more than one place, the association may, out of the funds allotted for the purposes of the syndicates, pay the half of the travelling expenses of the more distant candidates from their homes to the place of examination.

This law and the regulations that follow it are the Official part of the project. What ensues is the programme of the examinations for this year.

III

EXAMINATION OF THE CANDIDATES FOR THE OFFICE OF INSPECTORS.

FOR THE YEAR 1891.

The examinations will be in two parts: 1. An examination in writing: the candidates will have three hours in which to reply, in writing to a certain number of questions put to them; 2. An oral or *viva voce* examination.

The questions put will be in reference to the subjects enumerated in the following programme:

PRODUCTION OF MILK.

1. The milch-cow: rearing; characteristics of a good milker; breeds of cows.

2. Food and the modes of feeding milch-cows according to the different seasons; pastures, green-fodder crops, dry foods; wintering, fodder, siloes, roots.

3. Treatment at the farm of milk to be sent to the factory: milking, straining, aeration, cooling, &c., treatment of the cans, pails, &c.

DELIVERY OF THE MILK.

1. The best method of transportation; under what conditions it should be done.

RECEPTION AND TEST OF THE MILK.

1. Reception: treatment, weighing and measuring, return of the whey, skim-milk, or butter-milk.

2. Testing the milk: Instruments for testing and their use: lactometer and lactodensimeter, lactoscope, pioscope, graduated tubes or cremometers, little test-tubes, thermometer, tables of correction.

FITTING UP OF FACTORIES.

Characteristics of a well fitted up factory; use of the implements and tools.

1. Cheese-factory: Building: general division, protection against exterior temperature, floors, vat-room (*chambre de fabrication*), press-room, drains &c. Tools and implements: Steam-boiler, vats, curd-mill, presses, moulds, scales, tin-ware, &c.

2. Creamery; Building, general division, protection against exterior temperature, floors, skimming-room, butter-working room; icehouse and butter store-room. Implements and tools: Steam-boiler and engine, separators (*centrifuges*), vats, pails and cisterns for cream, churn, butter-workers and tables, scales, &c., shaftings and pulleys (computation of speed), &c., &c.

FACTORY SUPPLIES; QUALITIES AND MANNER OF USING THEM.

Cheese factories: Rennet, colouring, salt, cotton, boxes, &c., &c.
Creameries: Colouring, salt, cloth, tubs, &c., &c.

CHEESE-MAKING.

Method of manufacture: Preparation of the milk for receiving the rennet, adding the rennet, cutting the curd, heating, treatment of the curd while in the whey, drawing off the whey, drainage, treatment of the curd, grinding, salting, placing in the moulds, pressing, treatment in the cheese-room, &c., &c.

BUTTER-MAKING.

Method of manufacture: Skimming, treatment of the cream on leaving the separator, ripening the cream, churning, washing the butter, salting, pressing, packing.

Preparation of the products for sale.

Condition to be observed in putting the goods into boxes or tubs, weighing, stamping.

GENERAL CARE OF THE FACTORY.

Duties of the makers, of his assistants; relations with the public cleanliness, other conditions to be observed in the management of the factory.

ACCOUNTS.

Reading, writing, simple rules of arithmetic, decimal-fractions, keeping the accounts and books of the factory, computation of dividends (general summing up of accounts, abstract of bills, calculation of yields, amounts due), accounts of sales and deliveries.

EXAMINATIONS FOR 1891.

The examinations will take place at St. Hyacinthe, on the 11 and 12th of next March: they will begin at 10 o'clock in the morning. The candidates, on their arrival at St. Hyacinthe, may apply to MM. Taché and Désautels, notaries for information.

On the reception of this bulletin, the candidates, shall send to the secretary of the association a notice, in their own handwriting, of their intention to present themselves at the examination; this notice shall state whether the candidate is a maker of butter or of cheese, if he seeks an appointment as inspector-general or as ins-

pector of a syndicate, the number of years he has practised as head of a factory, the names of those by whom the candidate has been employed during the last two or three years; the names of the dealers who bought the whole of his cheese last season. To this notice, the candidate shall attach copies of the references he has in his possession, the originals of which he must bring with him to the examination. The notice should be sent as soon as possible, though all those who present themselves, even without notice, will be admitted to the examination; still, the want of notice will lead to delays affecting those who have omitted to furnish one.

The candidates shall prepare themselves as thoroughly as possible on all the subjects above mentioned. The examiners will take into consideration the little time that remains from the present date to the examination, and will be less strict this year. The certificates granted will be provisional, unless a brilliant success shall authorise the examiners to grant definitive certificates to some of the candidates.

The reports of our association and of the dairymen's association of Ontario, the published circulars and tables, the bulletins of the Ottawa experimental farm or of the school at Guelph, the *Journal of Agriculture* and the treatises on dairy-work, will furnish the candidates with full information on many of the subjects of the examination. The secretary of the association has a few copies of some bulletins and reports, which can be obtained on demand by the candidates.

Those interested will please to observe that no one will be appointed to the position of inspector before he has successfully passed the examination now announced, and that no syndicate will receive the grant unless it be provided with an inspector thus qualified. The department of Agriculture appoints the inspectors; but there is nothing to hinder a syndicate, if it has its eye upon any one particular inspector, from coming to a previous understanding with him, or even with two inspectors, as to salary, and afterwards taking the necessary steps to ensure his appointment by the department of Agriculture at Quebec.

ADDITIONAL REMARKS.

This is the completed scheme: to enable those interested in it the more thoroughly to appreciate its practical importance, we extract the following from the report of F. Bert Wherry, inspector of the syndicate of the division of Bedford during last season. This extract will show them a favourable side of the syndicates which they will more especially appreciate.

"I had 30 factories to visit, numbering 752 patrons. I made cheese on 130 days; I also made 47 short visits, at which I gave advice to the men.

I made 3030 tests of milk, with the lactometer, the pioscope and the graduated tubes, and 2020 tests with the lactoscope. I wrote 205 letters to different patrons who were in fault, as to suspicious milk they delivered at the factory. I discovered 125 cases of evident frauds, either by skimming, the addition of water, or by the abstraction of the strippings: 25 of the worst cases settled satisfactorily with the directors of their factory, the rest improved after their first warning; I found an improvement except in three cases."

At the Sorel meeting, Messrs. Pickett and Wilson, representing two large houses at Montreal, declared that every dollar paid for inspection have been worth considerable sums to the district of Bedford; Messrs. Fisher, Foster and Patten described the benefit produced, and announced at the same time the establishment of two syndicates for next season.

EXPENSES OF A SYNDICATE.

The utility of syndicates being well understood, this question naturally arises: How much will the inspection cost a syndicate? The syndicate will have two headings of expenses: 1. The inspector's salary; 2. His travelling expenses.

1. The salary of an ordinary inspector ought not to exceed that of a good maker; that is, from \$300 to \$350 for the season. The association has only paid its inspector-general \$400 for the last three years. The secretary then would be from \$300 to \$400 according to the importance of the syndicates.

2. Travelling expenses. As the territory of a syndicate cannot be very extensive, the purchase or hire of a horse and carriage for the season would save considerable expense; and so could it be an economy for the syndicate to oblige each factory to take in

the inspector to board at a fixed charge of so much a day, or so much a meal and bed. A dollar a day, on the average, ought to meet all the expenses of the inspector and his horse; add the interest on the purchase of the horse, or the hire for the season, making in all, \$175 to \$200 as the maximum. Thus \$475 to \$600, will represent the total amount of the expenses. And we know syndicates where things will be more economically. The Bedford syndicate paid its inspector \$500, and had only \$100 for expenses.

Now the syndicate will receive, from the government, a grant equal to one-half of its expenses, provided that half does not exceed \$250. Let us suppose that the syndicate has to provide, pretty nearly, \$300. We estimate the average production of a factory at 40,000 lbs. of cheese=20 tons. The subscription of each factory will be in proportion to its production in tons of 2,000 lbs. We have constructed the following scale which will serve for all purposes of calculation:

SYNDICATE OF	SUBSCRIPTION PER TON OF CHEESE.	SUBSCRIPTION OF AVERAGE FACTORY PRODUCING 20 TONS.	TOTAL SUBSCRIBED BY THE SYNDICATE.
	\$ cts.	\$ cts.	\$ cts.
30 factories.	0.50	10.00	300.00
25 "	0.52	10.40	301.60
26 "	0.54	10.80	302.40
27 "	0.56	11.20	302.40
26 "	0.58	11.60	301.60
25 "	0.60	12.00	300.00
24 "	0.62	12.40	297.60
23 "	0.64	12.80	294.40
22 "	0.66	13.20	290.40
21 "	0.68	13.60	285.60
20 "	0.70	14.00	280.00
19 "	0.72	14.40	273.60
18 "	0.74	14.80	266.40
17 "	0.76	15.20	258.40
16 "	0.78	15.60	249.60
15 "	0.80	16.00	240.00

It will be understood that the smaller syndicates will cost less as regards their total expenses more as regards the contribution per ton. We believe that the above scale will cover every case.

By whom are these expenses to be supported? They can be paid either entirely by the patrons, or entirely by the proprietor of the factory, or divided equally between these two parties; or, again, divided in thirds between the patrons, the proprietor and the maker. This question will be arranged according to circumstances; but the association affirms the importance for the patrons especially to ensure the inspection even if they have themselves to pay the whole of the cost of the expenses. The inspection is the best security they can have for the successful carrying on of their factory.

HOW TO ORGANIZE.

How to proceed in organizing a syndicate?

A person in each division should take upon himself, and at once, to request all the proprietors or representatives of factories

in the division to meet, at a fixed place and hour, for the purpose of discussing the advisability of constituting themselves into a syndicate. Our association has had printed a circular letter for this purpose, and on application to the secretary, every one who wishes to call together the factories of his division will receive the number of copies he shall ask for; at the same time, the secretary will send to the person in question the forms of declaration laid down for the constituting of the syndicate, (Regulations III. 3.) and a scheme of the rules to be adopted for its management.

Moreover, if it is desired to have some person to assist in the formation of the syndicate, by advising the meeting thus called together, the association will send a lecturer; but the secretary must be informed of this at the time when the forms of letters of convocation and the other documents are asked for.

With these means, we believe it will not be difficult to organise a syndicate in each division.

ADDITIONAL REMARKS.

It is not necessary that all the factories of the division be invited to the meeting: they should be, in all propriety, but if any one was passed over through forgetfulness, this omission will not be fatal to the project.

No one is obliged to become part of the syndicate, but no factory in the division can be refused.

More than one syndicate may be formed in a division, provided the minimum of 15 factories to a syndicate be attained.

When once syndicates are formed, they should come to a understanding, with the inspector they wish to engage, and put themselves in communication with the department of Agriculture at Quebec to obtain his appointment.

Each factory of the syndicate, from the fact that it will have to subscribe to the association, will receive all the reports, circulars, &c., of the association, as well as the Bulletin that will be published every month: see in the regulations referring thereto (II, 1, a; and IV, § 1, 5).

The report of the Sorel meeting will be ready by the 1st April; perhaps, before. We profit by the publication of this bulletin to require all those interested to renew their subscription to the association, or to enrol themselves among its members. Our list of members increases every day, and the advantages offered by the association are becoming more and more important.

No factory will be allowed to become member of a syndicate unless it pays a subscription to the association.

The bulletin will only be sent to members of the association; the same rule will be followed as to our other publication; reports, circulars, &c., &c.

The association is arranging plans for making the instruction given at its school for the manufacture of cheese more efficacious.

For all information desired, apply to the Secretary of the Association.

Quebec, this 27th January, 1890.

For the Executive Committee of the Association.

J. DE L. TACHE,
SEC. D. A.