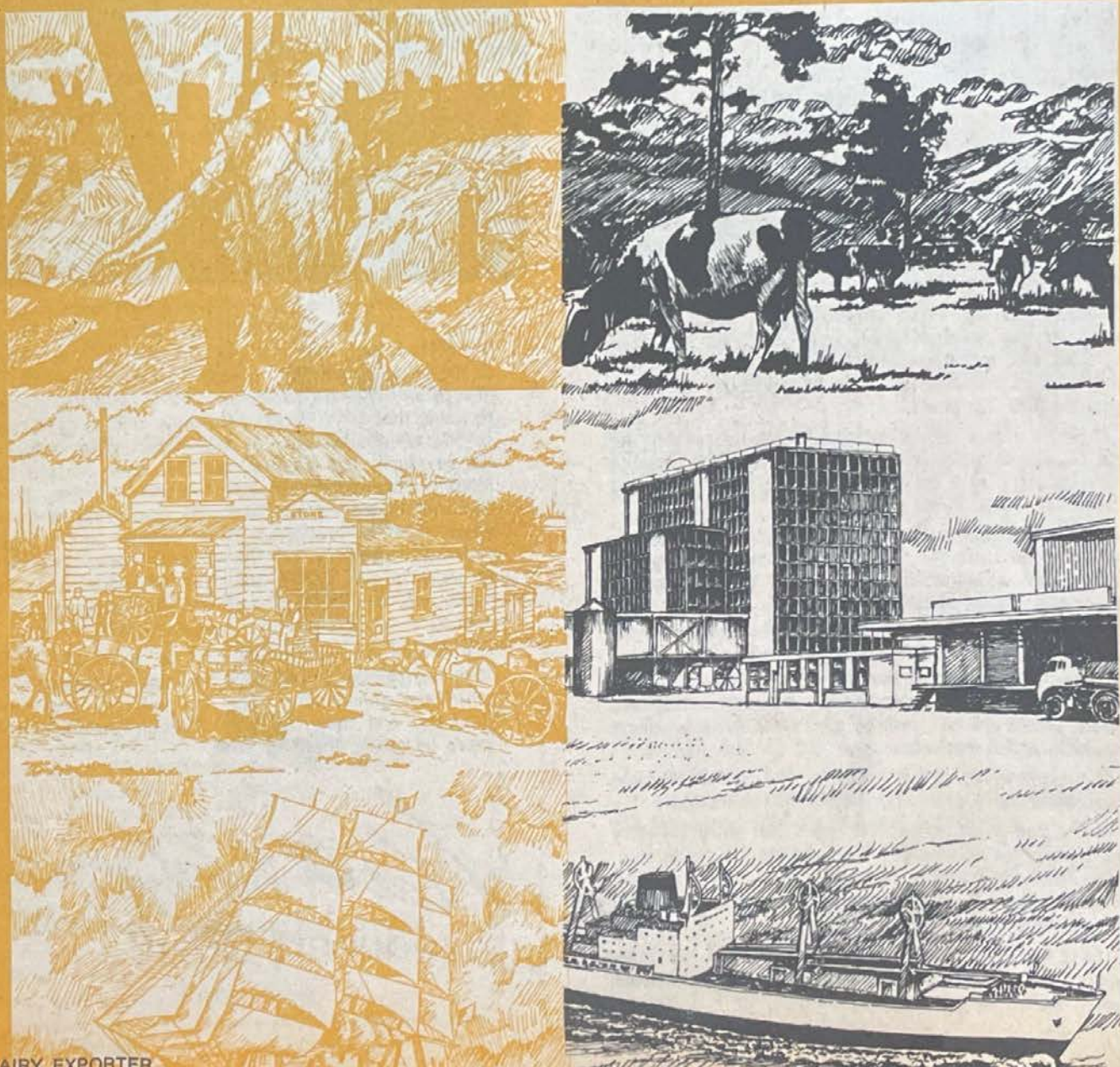


Century of achievement 1871-1971



Message from the Prime Minister

Rt. Hon. Sir Keith Holyoake, G.C.M.G., C.H.

There are three things about the New Zealand dairy industry which any outside observer must find as striking.

One is the industry's undoubted efficiency in turning grass into milk.

Another is the size, scope, and sophistication of its manufacturing plant, which turns milk into scores of different dairy products of the highest quality.

The third is that it is a nationally co-operative industry, from the shareholding farmers who supply the factories, through to the marketing of the finished goods.

On the first point, the efficiency of the New Zealand dairy farmer is known the world over. New Zealand has the highest output of milk per labour unit, and the lowest costs of production of any dairying country in the world.

Dairy farming in New Zealand is not a cottage industry, as it is in many other countries. Herds average over 100 cows per farm. Nor is the acreage small, most farms being in the 100 to 170 acres range.

Because of the trend toward bigger herds, bigger farms, greater mechanisation, particularly in the milking shed, and more specialised use of labour, the whole dimension of dairying has been progressively enlarging over the last 20 years.

There is also a new dimension to the manufacturing side of the industry. The concept of the New Zealand dairy industry as a maker and marketer of butter and cheese was abandoned years ago.

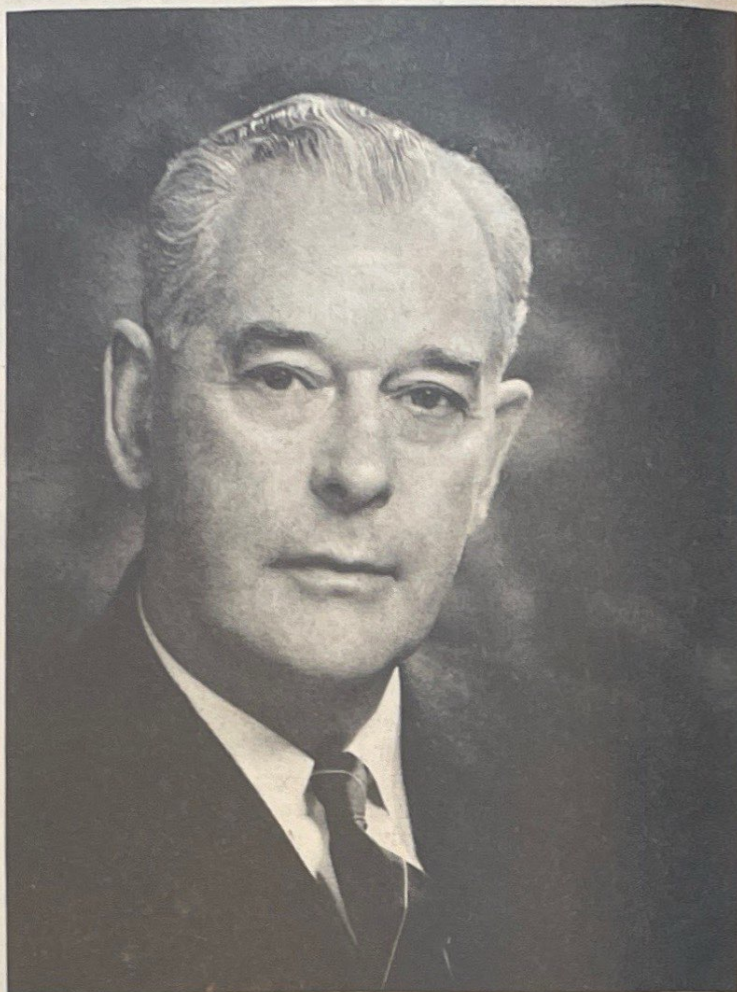
The dairy industry today is a huge milk-food processing industry. It is the industry of food technology. It turns a basic raw material, milk, into a host of varieties and specifications of products.

In marketing, as in manufacturing, the dairy industry has long followed a policy of diversification away from the principal market in the United Kingdom. Although Britain remains the major market for our butter and cheese, nearly 90 per cent of our other dairy products is sold in other markets.

This great co-operative industry, the world's largest exporter of dairy products, is now 100 years old.

In the course of those 100 years the dairy industry has seen some very great men among its leadership. It has been my pleasure to have known many of them personally, particularly in the years since I began my own political career in 1932.

I have known personally all the chairmen of the Dairy Board, from the first, Mr William Grounds, to the present holder of this important office, Mr F. L. Onion.



In my personal opinion, there is one man who, because of his achievements in the industry and his far-sighted wisdom, deserves special mention in any record of the co-operative dairy industry's first 100 years. That man is Sir William Goodfellow, and it is indeed pleasing to know that Sir William is still alive and in good health in the centennial year of the industry for which he did so much. The stature that the New Zealand dairy industry has attained, and the control that it has achieved in the manufacture and marketing of its products, must be gratifying to Sir William and the many surviving members of the industry who battled so strongly in the 1920's and 30's to make co-operative marketing as much a part of the industry as co-operative production and manufacture.

I extend my congratulations to the New Zealand co-operative dairy industry on the occasion of its centennial anniversary. May the industry continue to progress, and may the way through the second 100 years be easier than the first.

The Minister of Agriculture

Hon. D. J. Carter

The New Zealand co-operative dairy industry is now 100 years old. From a handful of suppliers to one factory, it has grown to become the world's largest exporter of dairy products.

Its factories have achieved world recognition for their efficiency and the quality of their products. The efficiency of its farmers is equally well known to the rest of the dairying world.

For most of these 100 years my Department has been closely associated with the dairy industry. The Department of Agriculture has been a separate Government department since 1892 and its principal function has been to promote the development of all phases of primary production.

In 1894 the Department pioneered Government grading of dairy products, and over the past 77 years the grading system has played a most important part in building the world-wide reputation of our dairy products for quality and uniformity.

There are many other links, equally strong, between the dairy industry and my Department through the great variety of services that the Department provides.

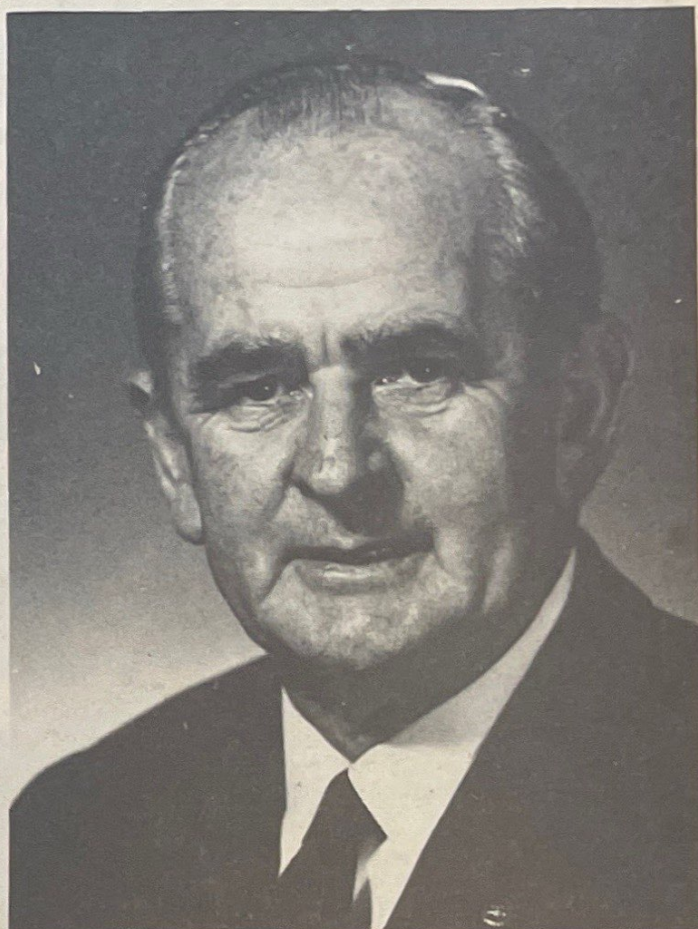
There have also been close links between the Government of New Zealand and the dairy industry at a higher level. Ever since the formation of the first Dairy Produce Control Board in 1923, the Government has been represented on the Boards which have governed the co-operative dairy industry.

The relationship between the Government and the industry has grown closer in recent years as the Dairy Board has assumed control of the marketing of dairy produce.

This centennial year of the co-operative dairy industry was also the year of the Luxembourg Agreement on the broad terms of Britain's entry to the European Economic Community, and the leaders of the dairy industry and the Dairy Board's executive officers played a vital role in the discussions which took place in New Zealand during this eventful period.

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The first 100 years of the co-operative dairy industry in New Zealand have not been easy. Many of the major objectives of the pioneers of the co-operative movement were not achieved until well on into the second half of the industry's century.

The first Dairy Board was not set up until 1923, the manufacturing side of the industry did not become wholly co-operative until after 1936, and the principal objective of some of the early leaders of the industry — producer control of the marketing of dairy products — was not successfully achieved until 1961, 90 years after the founding of the first co-operative dairy factory.

I have been a part of this dairy industry since I first came into the world. My parents were dairyfarmers then, and I am a dairyfarmer still.

My experiences in the dairy industry have been the shared experiences of thousands of other farmers. The real greatness of the industry rests on the broad shoulders of the individual dairyfarmer, on his family, on his employees, and on the men and women who staff our dairy factories.

I am proud to be numbered among these people in this centennial year of our great industry.

D. J. Carter

Isn't it nice
to feel our efforts
are well protected



Yes, by a New Zealand
company, and using
New Zealand materials



New Zealand's dairy industry is celebrating its centenary . . . UEB still has two years to go to its silver jubilee.

Though 77 years younger, UEB regards itself as part of the dairy industry. Being a New Zealand company, it's proud to do so for these reasons.

• It believes in New Zealand's future as a supplier of food to the world. • It totally supports the processing of New Zealand raw materials for export world-wide. • Its own manufacturing is based predominantly on the nation's resources — wood into packaging, wool into carpets.

UEB has been actively associated with the dairy industry since the early 1950s. In September 1959 it began making all the containers in which New Zealand butter and cheese is shipped abroad. It still does. Using New Zealand raw materials. Since 1959, in fact, UEB has converted more than 135,000 tons of New Zealand-made kraft paper

into more than 100-million butter and cheese export packs. It supplies the industry from three points. The Frankton branch laminates paper into solid fibreboard and makes the containers for all export butter, and for export cheese produced in the North Island. The Christchurch and Invercargill plants make the containers for South Island export cheese. Servicing the dairy industry is a major enterprise within UEB's sphere of operations. It involves many people. Not only UEB people. And it plays its part in the massive contribution the industry makes to the nation's well-being. Reasons enough for UEB to join New Zealand in congratulating the dairy industry on a century of progress.

Wholeheartedly.



U.E.B. INDUSTRIES LTD

Packaging, Textile and Building Material Divisions
Head Office, 6-14 Eden Crescent, Auckland 1

Chairman of the N.Z. Dairy Board

Mr F. L. Onion, CMG

One hundred years ago this month, New Zealand's co-operative dairy industry was brought into being by the enterprise and courage of seven forward-looking settlers on the Otago Peninsula. The founders of the Otago Peninsula Co-operative Cheese Factory Co. Ltd., in establishing their infant company on co-operative lines, laid down principles of operation and policy which set the pattern for our dairy industry today.

History indicates that the outlook of the promoters of New Zealand's first co-operative dairy company was fair minded and generous and, above all, they were united in their determination to control their own destiny. The work of those pioneers was well and truly done. The spirit in which they established their enterprise has lived on and provided the central pulse of this industry up through the years.

The state of New Zealand's dairy industry in our centenary year is a tribute not only to the foundations of the earliest pioneers, but to the sound and dedicated leadership on which it has been built and developed through the generations. Unique amongst the dairy industries of the world in that it has been developed principally for export trade, its contribution to the nation's economy has been an outstanding one.

In the trading year ended May 31, 1971 our export earnings from milk products set a new record of \$250 million. With the value of dairy meat exports added, the total was \$320 million, or close to 30 per cent of New Zealand's total overseas exchange receipts in the past financial year.

It is evident that our overseas earnings will be appreciably greater in the current trading year. There is every justification for the claim that the dairy industry is a cornerstone of the New Zealand economy. Our contribution to New Zealand's needs and well-being has been continuous and considerable, and our overseas earnings have been a vital support to the New Zealand economy and way of life.

Up through the last hundred years we have been singularly fortunate in the calibre of the men who have charted the industry's progress and development in all sectors, and maintained and strengthened the co-operative and democratic principles on which it was first established.

New Zealand's dairy industry today, with its 100 co-operative dairy companies and the dairyfarmers who provide their supply, its service organisations and the comprehensive organisation of the Dairy Board as its central head, is perhaps the world's most successful example of co-operative enterprise on a national scale. In the export marketing of our products in 100 different countries, co-operative organisation is allied with private enterprise.

Co-ordination and teamwork at national and regional



levels are wellsprings of this industry's strength and vitality. They start at the grass roots with the dairyfarmers who own the dairy companies and the directors who mould their policies. We are singularly well endowed in the ability, dedication and enthusiasm evident in our executive and technical teams in all sectors.

Challenge is nothing new to the dairy industry. It was born of hardship and has been nurtured on challenge up through the years. In this our centenary year, when we pay tribute to the men of Springfield and those who followed them in building soundly and well for posterity, we face new challenges, and will overcome them.

In this technological age, there is still scope for the pioneering spirit. It is very much alive in this industry today and will serve us well in meeting the changes and challenges of our second century. We move into it with every confidence.

The N.Z. Milk Board is pleased to be associated with the N.Z. Dairy Industry on the occasion of its centennial celebrations.

Twenty-five years before the Treaty of Waitangi was signed, cows roamed a typically English landscape in the Bay of Islands. New Zealand's first cows, and a bull, were landed there in 1814 (by the Rev. Samuel Marsden). Their offspring gave milk to the missionaries who stayed in the country to introduce the Maori race to Christianity and English farming methods.

In 1835, the neat and orderly mission farm at Waimate, surrounded by native bush and a large Maori population, was a great surprise to Charles Darwin paying a brief Christmas visit to the Bay of Islands on board *H.M.S. Beagle*. Towards the end of the 1890's some farmers milked their cows and then delivered the milk to local homes in cans and billies. This was really the beginning of the town milk industry, but milk in those days was not pasteurised and was of uncertain quality. Pasteurisation was first used in New Zealand in 1896. This was in a dairy factory in

Waverley, but it was not until much later that the process became widely used.

It is now fifty years since pasteurisation was introduced to the town milk industry and sales of raw milk have fallen from 17 million gallons in 1948-49 to only 249,000 gallons in 1969-70.

The Town Milk Industry in its present form can trace its beginnings to the passing of the Milk Act in 1944, which acted as a turning point in the history of the industry, particularly in regard to organisation and in matters of price fixing which have been of benefit to consumers. Today, no less than 82 million gallons of milk are pasteurised and bottled annually with modern equipment. In addition 1,700,000 gallons of cream plus quantities of yoghurt, cottage cheese and other cultured milk products are produced for consumption both in New Zealand and overseas.

N.Z. MILK BOARD



"...to form a company for the purpose of cheesemaking" — So it all began

On a wintry night with the feel of snow in the air, seven men trudged from various points on Otago Peninsula to the homestead of John Mathieson at Springfield and at the end of a discussion agreed to form a company "for the purpose of cheesemaking on the co-operative principle with limited liability; shares to be £1; each share to represent 10 quarts of milk".

The record of this meeting, on August 22, 1871, can be found in Hocken Library, Dunedin, and the historic minute book of the Otago Peninsula Cheese Factory Company Limited provides the New Zealand dairy industry's earliest recorded link with the co-operative principle on which its development and expansion has been based over the past century.

PRODUCTION from the original "factory" — a stone-walled building at the rear of the Mathieson homestead, sturdily built of local stone and roofed with slates from Wales — did not begin till September, 1871. Unfortunately, all records of the actual date on which cheese was first made at Springfield have been lost, but it was certainly inside the first fortnight of that month 100 years ago.

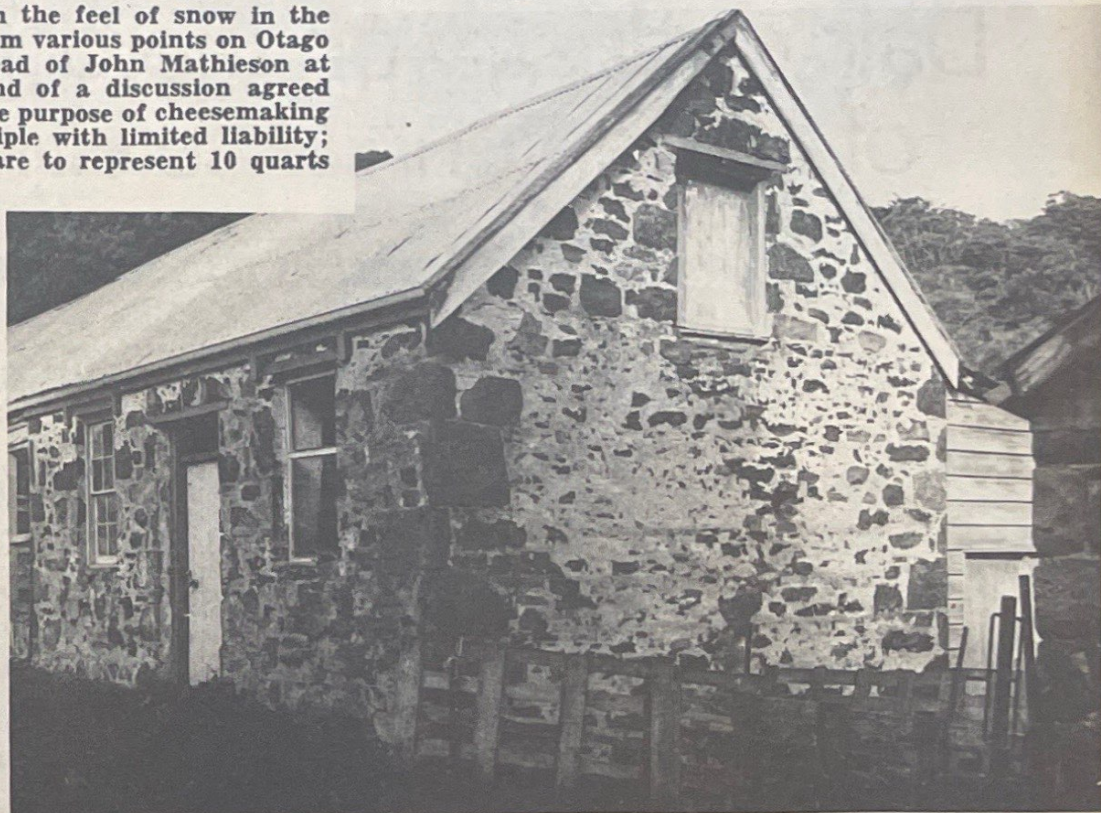
Industry's cradle

The homestead of John Mathieson is the New Zealand dairy industry's cradle. It still stands, as solid and sound as on the day when the last of the stone from the farm property was shaped and placed in position to complete for that pioneer Scot a substantial home for his family, and unwittingly a landmark of great historical significance to co-operative producer enterprise.

That first co-operative cheese factory a century ago comprised a stone-walled barn and loft which was part of the Mathieson farm complex. This was converted into premises for cheesemaking. Use was also made of the homestead kitchen where cast-iron and enamelled tubs of whey drawn from the vat were heated, carried back to the shed and poured into the vat to bring its contents to the proper temperature for cheesemaking.

It was an arduous and laborious job and John Mathieson

N.Z. DAIRY EXPORTER



by
G. S. ROYDHOUSE,
Director of
Publications,
N.Z. Dairy Board

son's wife, Catherine, must frequently have felt the imposition on her domain. However, primitive as this beginning was, it was effective. The herds of the eight suppliers produced the milk for four tons of cheese in the first season, sold for £246/6/1. A hundred years later, 85 cheese factories throughout New Zealand produce annually for export nearly 100,000 tons worth around \$50 million according to market levels.

First eight

The eight pioneers who met 100 years ago were John Mathieson (who took up 20

New Zealand's first co-operative cheese factory made and cured its product in this stone-walled barn 100 years ago this month. The building is part of the original barn and byre complex of the Springfield farm of John and Catherine Mathieson on the Otago Peninsula. The original shingles are still visible under the corrugated iron roofing.

shares), James Beattie (15), Alexander Stuart (12), Thomas Inglis (12), Richard Irving (10), William Michie (5), John L. McGregor (3) and Walter Riddell (5). The minute book records that "Mr Mathieson offered to build a storehouse suitable for drying cheese on condition of receiving interest on the money so spent".

The initiation

Co-operatives were not entirely unknown in New Zealand at that time, though they were more concerned with the Manchester system of purchase of goods than the manufacture and disposal of products. But it was by all account an inspiration of the highest order which prompted John Mathieson in this particular enterprise.

For some years previously he had lived at Grants Braes—now an urban area covering the Dunedin city end of Otago Peninsula—and farmed a property leased from Rev Thomas Burns, leader of the Scottish community, for seven years. This land and the rents from it formed part of the minister's stipend.

Mathieson was a cheesemaker and so was his wife. They did well in their small way and when the lease of the Braes property expired in 1865 and he drew Springfield in a ballot, Mathieson decided to build there. There seems little doubt that when cheese began to be produced at Springfield, Mrs Mathieson became New Zealand's first woman co-operative cheesemaker.

(Continued on page 47)

FOR 100 YEARS THE PIG INDUSTRY WAS A PART OF THE DAIRY INDUSTRY

*Now, with Dairying entering its second century —
The Pig Industry is set fair to strike out on its own.
Over these years Dairying has been our guide
and protector.*

THE PIG INDUSTRY OF THE PAST IS
GRATEFUL

THE PORK INDUSTRY OF THE FUTURE
LOOKS FORWARD TO SHARING GOOD
FORTUNE WITH THE DAIRY INDUSTRY
IN THE YEARS AHEAD

SO IT ALL BEGAN

(Continued from page 45)

The company's rules were drawn up in the early days of September and promulgated, and one shareholder, John Laidlaw McGregor, was appointed: "to receive milk, mark it distinctly and to give each his share of whey and to make cheese to the best of his ability for the sum of £1/16/- a week, he agreeing to take £4 a month for the first three months as part payment, the company to find a person to teach him the art of cheesemaking; and he agreeing not to teach anyone out of the company without the company's consent."

Tyro cheesemaker

To all of this John McGregor consented, on condition that his three shares be defrayed from the balance of the first month's wages due to him.

This would seem to imply that McGregor at the outset was a tyro and that the Mathiesons, with the infant industry centred on their homestead and their own knowledge of cheesemaking, would be McGregor's tutors. Indeed, the minutes record a payment of £5 to Mrs Mathieson for her services to the company.

It was decided on the recommendation of the new company's rules committee: "That we write as a co-operative company limited. That the company be governed by a manager and two directors, also that two auditors and a milk inspector be appointed."

Too many cooks . . . ?

"That the managing directors shall have full control of the factory, the making of cheese, and the sale of same, the employing and paying of workers, and the buying of all necessities for the proper conducting of the business in general."

At the subsequent election of officers Mr Alexander Stuart became chairman, Messrs Mathieson and Irving directors, Messrs Michie and Inglis auditors, Mr Beattie milk inspector, and Mr John McGregor secretary in addition to his cheesemaking responsibilities. Later still, Mr Mathieson was appointed treasurer, and when it was decided that the factory should have a coat of paint, auditor Michie was given the work. After the first cheese make, auditor Inglis and milk inspector Beattie proposed that "Dunlop cheeses be made and

JOHN MATHIESON

Moving spirit of the Peninsula Co.

The voyage from Glasgow to Dunedin in the vessel *Jura* was not a particularly happy one for John Mathieson, destined to found New Zealand's first co-operative dairy company, and for his wife Catherine and their three children. They reached Dunedin in 1858.

John Mathieson leased a farm at Grants Brae and seven years later moved to Springfield on Otago Peninsula, rolling country with spectacular views of the harbour and city. Here it was in 1871 that the decision to found the Otago Peninsula Cheese Factory Company was taken, with John Mathieson as its moving spirit.

JOHN MATHIESON was about 40 years old when he left Scotland for New Zealand. He had accumulated capital of probably near to £1000, so he was a great deal better off than many of the "280 adults in the hold, 420 souls in the ship." His diary records some of the highlights of a voyage which started badly with rough seas, but improved when in the trade winds.

Diversion

A diversion for him was to help clip the five sheep aboard for the use of the cabin passengers. He and his fellow-shearers were given the wool for their trouble. "One fleece falls to me. I think there is little risk in taking out sheep. There are 150 hens for the same purpose and they do well,

that Mr Michie make curd dripper for the same".

The "factory"

This suggests that cheesemaker McGregor was not yet properly in his stride and that perhaps the first make was not a great success. Dunlop cheese is the traditional type of cheese made in Scotland, and no doubt these pioneers were more or less familiar with the technique which, however, might have required some modification in this hemisphere. It is virtually identical with Cheddar.

The "factory" requires more

(Continued on page 49)

too. There is also a 'cannera.' It whistles fine. There are also 12 pigs, about half of them dead and the rest all 'crinked' and thriving very poorly. The sooner the remainder of the stinking brutes dies the better."

Crossing the equator a temperature of 88 deg. F. in the shade was registered and he noted that some of the passengers were not thriving so well in the heat "and the water is not very good at present." The winds turned unsteady and heavy "plumps" of rain fell. The water was collected for washing.

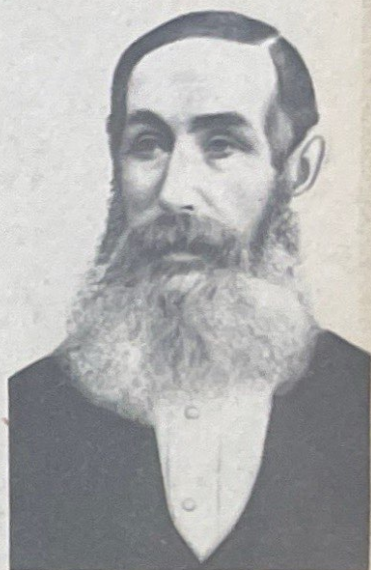
Four children died during the voyage. A diary note records that whooping cough had been amongst the children ever since the ship left Glasgow; the Mathieson children had it "slightly, and they sometimes take a big kink when ruffled in temper." The newly-weaned children were not thriving because of the difficulty of finding suitable food for them, "but the sucking ones do fine."

Before the voyage ended, a phlegmatic John Mathieson was moved to write: "A sea voyage is not so wearisome a thing as one would suppose. A week soon slips away, but to give you a full understanding of it without you had a little practice is in my opinion impossible. There is something grand and noble in it, and there are inconveniences and bustle also . . . Our bedroom is 6 ft square . . ."

Back to farming

Once his feet were on New Zealand soil, John Mathieson wasted no time in getting back to farming. His diary shows how well he progressed in his new environment, buying and selling milk, making cheese for sale and buying and selling stock—mostly cattle. His income for the first year on the leasehold at Grants Brae was a net £914. By 1867 his cash assets amounted to more than £5000, most of this invested in stock and property mortgages.

He was, in fact, a reasonably



John Mathieson



Catherine Mathieson

wealthy man for the times and when he drew the Springfield property in a ballot, he contracted with a stonemason to build the homestead in which New Zealand's first co-operative dairy company came into being. One Stewart Leckie was paid £10 "for as many stones as will build my house and byre and to fill up large holes which may be made in the ground." Cutting and trimming the stones cost in all £501/0/2.

John Mathieson also bought 1000 hawthorn bushes for 15/- and some of these are still growing on the property. The homestead was completed in 1865.

The Springfield property was farmed by the Mathieson family for 53 years and then, in 1917, was sold to Mr E. Y. Aicken.



In 1871 it took a brave man to say "cheese"

The setting up of a co-operative to make and export New Zealand cheese, was a bold and perhaps dangerous move in 1871.

Yet it succeeded and became the basis of the world's most efficient and dynamic dairy industry.

At Wright Stephenson and Co. Ltd we've played our part in developing this great industry.

When the first dairy co-operative was established in Otago, our company had already been in

business there, serving farmers, for over a decade.

In 1906 we established an office in London to promote the export of New Zealand dairy products.

Today we are the only New Zealand owned company to act as an agent of the New Zealand Dairy Board in the U.K.

In New Zealand we are contributing to herd improvement through the supply of superior stock, particularly stud stock.

The Wright Stephenson of 1971 is a diverse organisation operating not

only as a stock and station agent, but also in motor vehicles, property development, real estate, retailing, manufacturing and finance.

But none of this has weakened the traditional bonds with the dairy industry which have taken a century to forge.

We would therefore like to congratulate the farmers of New Zealand and the New Zealand Dairy Board.

And express our confidence in the future of the New Zealand Dairy Industry.



Wright Stephenson and Co. Limited

SO IT ALL BEGAN

Centenary Issue

(Continued from page 49)

"One reads the records of this little company's operations with admiration, so businesslike were the methods adopted, and so generously fair-minded the outlook of the promoters, as indicated by their handling of the emergencies which arose. As a model for the co-operative dairy company, it is astonishing how little the present-day system has deviated from that which this company formulated."

The Peninsula Cheesemaking Company and its shareholders (who included six of the original company members), to ensure continuity and uniformity of supply, bound themselves to "well and truly bring all our morning's milk unto this Company's premises to the amount of 10 quarts for every share held by us" and for a term of 14 years!

Abundant faith

This was nothing if not a defiance of past discouragements and, as events were to prove, an over-optimistic faith in the future of the new company.

Shares were valued nominally at £1 and were held by: Alexander Stuart (10), Mrs Jessie Patton and J. Tilford (5), R. Irving (10), C. Weir (10), G. Fleming (10), J. L. McGregor (10), W. Riddell (10), P. Carmichael (8).

No time was wasted calling up the capital and, in addition, a "ways and means" meeting decided to borrow £50 at 8% from Mr Cochrane Weir to enable certain work to be carried out and to allow the new company some working capital. It was further agreed that the new company should pay back from the funds of the old company the sum of £4 to John Laidlaw McGregor "being amount of money invested by him as shares in the said company having withdrawn from the co-partnership".

Men of parts

The new manager, George Farquhar, had already constructed a floor of stones and cement in the company's drying house. The terms of Farquhar's engagement were "to make cheese this year (1875), turning and firing flue to keep house at proper heat until all the cheese are disposed of, for 12/- per day during the time he is making the cheese".

Walter Riddell was a member of the original company and he increased his shareholding in the new company of which he was

elected secretary. As his minutes testify, he was a phonetic speller, but this was no impediment to his efficiency. He never did spell his chairman's surname correctly and showed a permanent preference for "Stewart" despite the fact that Alexander Stuart's signature at the foot of the minutes of every meeting was perfectly legible. Alexander Stuart and Walter Riddell both played important parts in the continuity of the second and

cheese". Clearly this was to allow him time enough to seek other employment in the off-season.

Sour supply!

The first year passed more or less without incident for the new company, but on January 20, 1877, a crisis point was reached, and one which was to recur, to the company's dismay. It will be remembered that the original company appointed a milk inspector. Apparently his services

shares and to be forever dismissed from the Company".

It was also agreed that this decision be written into the by-laws of the company and that when inferior milk was detected

"SUCH MILK TO BE SET ASIDE AND A MEETING OF THE SHAREHOLDERS CALLED IMMEDIATELY".

This was not the only trial the company faced. In its first season it obtained a price of 11d a lb for the cheese it sold. In the following season the dealers' price fell to 9½d. And later: "If an offer of 7d can be got the cheese be sold". Eventually sales were made at 6½d.

And then water

The year 1878 was also not without its moments. On December 27, 1878, "it was moved by Walter Riddell, seconded by Richard Irving, that this Company has every confidence in Mr and Mrs Farquhar as their cheesemakers". This was the first indication that the company was employing a woman cheesemaker and this is in itself historically of interest. What gave rise to the compliment to the Farquhars is unknown, but it could have had a lot to do with inferior milk being sent to the factory and also to Farquhar's vigilance in another direction.

The next entry in the minutes of that meeting was: "It was moved by Walter Riddell and seconded by Gavin Fleming that as water had been found in a can of milk belonging to Robert Stuart, the Company believe that it was an accident and acquits him of knowledge of the matter. The motion having been put to the meeting, seven voted for, one not voting".

Cheese prices were the major pre-occupation of the company and in January, 1879, offers to purchase at 8d a lb were considered and accepted. It is noteworthy that where the original company's annual make totalled some 4 tons, the successor company was turning out 5 tons. The minutes record that consideration was being given to increasing output, Walter Riddell being asked to make the vat larger. It was round in shape and its diameter was increased by 1ft.

By the end of the year the best cheese price obtainable was 7½d a lb and sales were made at that figure.

The turn of the 1870s into the 1880s was marked by the re-appearance of the Mathieson name in the company minute

(Continued on page 53)

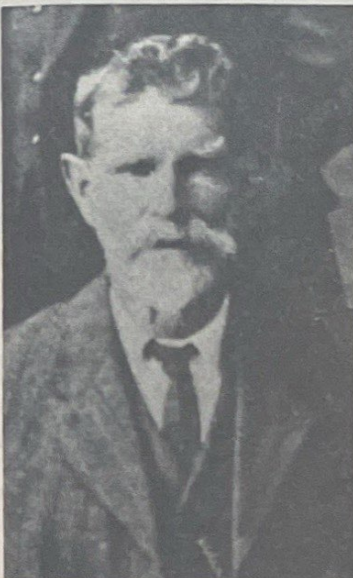
Goldminer turned dairy company director

Cochrane Weir, born in Leith, Scotland, was six years old when he arrived in Dunedin with his parents in the ship *Blundell* in 1848. They farmed at Sandymount on the Otago Peninsula and converted a small holding from dense bush into pastureland.

HE was young and energetic when the lure of the goldfields took him first to Lake Wakatipu and then the Dunstan goldfield, where he met with considerable success. However, a disastrous flood reduced him and many of his fellow miners to virtual poverty.

It took him seven weeks to reach the West Coast diggings on horse and with a partner they began storekeeping and packing. About 2½ years later he returned to Dunedin with a modest fortune, bought a farm property near the family holding at Sandymount and eventually extended his holding to some 200 acres.

Like others on the peninsula, he took up dairying. He was not an original shareholder in the historic Otago Peninsula Cheese Factory Company



Limited, but he was among the first of the new members to be admitted to the co-operative partnership. He was later elected a director, retained that responsibility when the company was reorganised, and later still was appointed auditor.

other companies which sprang from the original.

Riddell was very much a practical handyman and apart from secretarial duties he was paid to build an addition to the factory premises to hold the cheese presses. It was arranged with George Farquhar that in addition to a payment of 12/- a day for making cheese, he was to dry it properly and wash cloths for £2 a month—"two weeks' warning to be given him before company ceases to make

were never required and these duties were incorporated in manager Farquhar's. The latter was constrained to complain that "one of the company's members has been found sending inferior or sour milk into the factory".

Two days later a special meeting agreed that "any shareholder bringing any other than morning's milk (without special arrangement) or sour, or any other inferior milk, into the premises, his name to be struck off the list of shareholders, to forfeit his



Door-to-door transport, reduced cargo handling leading to savings in time and money, less risk of loss or damage in transit, streamlined delivery procedures . . . Milk tankers brought these benefits to the dairy industry at the raw material end years ago.

ACT's container service now applies the same principles to the export of the industry's finished products.

ACT's Pacific America Container Express service (PACE) began with the maiden voyage of ACT 3, the largest refrigerated containership afloat. She left New Zealand carrying cheese and casein for U.S.A. and Canada with all the advantages that go with containerisation

We're carrying on what the milk tanker started

— refrigeration on land and sea, co-ordinated transport, computer documentation.

We congratulate the world's most efficient dairy industry on its first 100 years, and look forward to further technological stimulation while serving it in the future.



ASSOCIATED CONTAINER TRANSPORTATION (N.Z.) LTD

PACEmakers of the container age

SO IT ALL BEGAN

(Continued from page 51)

book and in the affairs of Peninsula cheesemaking. The minute book gives no hint whatever of admission to membership and amount of shareholding, but James Mathieson, son of John and Catherine, attended a meeting on November 17, 1879—four years or more after his father cut all connection with the original company.

Since there is no evidence that John Mathieson sold or surrendered his shares or that the second company took any steps to regain them, it is assumed that they were transferred to James, who that year had taken over the Springfield farm from his father.

Dairying was still the major occupation on the Peninsula, but the turn into the new decade was accompanied by a fall in the price of cheese to 6½d a lb—and at a time when the company was extending its factory premises.

Then came another emergency. The minutes of a meeting on September 8, 1880, state: "the company having reviewed the cheese broken by mice, picked out 16 very bad and appointed Mr Stuart and Mr Weir to ask Mr Thomas Low (a dealer in Dunedin and a principal of the firm Low & Ester) to take the remainder if the Company allow 1 lb on each cheese for waste."

Down went cheese returns once again.

However, the one bright spot in the year's operations fell the way of cheesemaker Farquhar. He was authorised to send two cheeses to the 1880 Melbourne Exhibition. No record exists of what success the company might have achieved, but there is a suggestion that the company was pleased with the outcome of this venture. Pleasure was short-lived, however. A meeting of members was called to consider a letter from dealer Low.

First exports

The letter said that the "company's cheese was of an inferior quality this year" and offered a purchase price of 4½d a lb net cash. "It was carried unanimously that we accept the offer".

For at least 20 years there had been spasmodic exports of butter and cheese from New Zealand to Australia. The earliest dairy stock to be established in New Zealand came from Australia and with conditions in this country conducive to dairy production it was no wonder that the pioneers were anxious to find

wider outlets than the small local market for their produce. Lack of refrigeration handicapped early plans to feed the Australian market, but this was overcome in various ways.

At a company meeting on February 4, 1881, it was unanimously agreed that "Richard Irving and Walter Riddell call on the Commission Agent for the Sydney market to make enquiries upon what conditions we can send our cheese". As a result, the company sent 20 cheeses to Adelaide as a trial, and the appropriate meeting ordered that the cheeses be sent "in the hoods and packed in white pine".

George Farquhar, another Scot who came to settle in Otago in 1874 and was manager-cheesemaker to the Peninsula Cheesemaking Company through its changes of title between 1875 and 1884, when the T. and P. Company took the struggling co-operative enterprise over, has earned his place in dairy industry history as a pioneer of cheese export. Sad to relate, the s.s. Tararua, carrying the company's first consignment of cheese to Adelaide, went down with great loss of life off Waipapa Point, Southland, on April 29, 1881, but Farquhar's subsequent export ventures were more successful.

THE PRODUCTION season of those early cheese companies was from September or October to March and they took only morning's milk, because of the widely-held belief that evening's milk was too high in bacteria, acting against the production of good quality cheese.

The company's original cheese press—probably made by the inventive Walter Riddell, an original shareholder—was used on the peninsula by George Farquhar until 1884. When the company ceased operations in 1884 he took it south and approached the Edendale Company, formed in 1882, for a job. It was later used on a property owned by Farquhar's relatives near Wyndham, but was destroyed when an old wool shed was pulled down.

Misfortune was the company's only reward. The trial cargo never reached its destination. The ship was wrecked, the entire cargo lost, and there was great loss of life. Notwithstanding this frustration, the company sent away another 20 cheeses, this time to Western Australia.

Before the year was out, more cheeses were sent to Australia—at a price of 5d a lb less 2½% discount for cash. Walter Riddell appears to have been in charge of export sales. It must have been a mortifying experience to hand to the company a cheque for £16/7/9 representing a season's export earnings.

Change in constitution

An innovation was introduced to the company's constitution when a meeting on November 6, 1882, was called to arrange with parties "who were willing to send milk into the factory to get

it made into cheese, without having shares, by paying their share of all expenses incurred in manufacture".

This was agreed to. It could have arisen so as to regularise James Mathieson's appearance or to take care of those who defaulted with their 7.30 a.m. deliveries. It could also have been designed to ensure a greater supply of milk in the event of more output being required, and hence a way of increasing the company's returns.

By the end of 1882 the market price for cheese was 7½d, dropping to 7d and then to 6d. Early in 1883 the company agreed not to sell any more cheese for less than 7d a lb. Two months after this decision was made "it was unanimously resolved to sell cheese at 6½d". Seven dealers took the company's output.

Change of name

On August 18, 1883, another change was made to the name of the company which, though electing the same officers (with a new auditor the only exception), became the Pioneer Cheese Company. The minute book is again silent on the reason for this, but the major business of the meeting was to "advertise for a maker to make the cheese this year". It was eventually arranged that "Mr George Farquhar would make the cheese again this year for 14/- per day".

It would appear that after a long period at a "salary" of 12/- a day when making cheese, plus an allowance for curing it and washing cloths, George Farquhar had at last put in for an increase. Whether his wife was also involved in this is not disclosed by the minutes, but his services were retained and this demonstrated either a shortage of adequate cheesemakers or that none was available at a 12/- daily rate. George Farquhar won the round in spite of the fact that cheese prices were weakening.

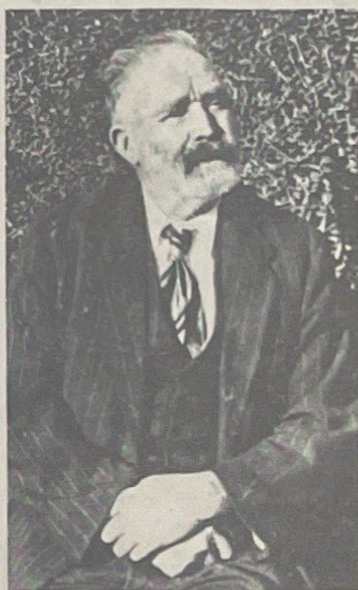
Bad finish

An awkward situation wound up the year and just before Christmas Day a meeting was called to take into consideration "some person's milk reported to be bad. Mrs Patton stated her milk had not been good for about five weeks. It was resolved to recommend to her to keep her milk at home for a day or two until she ascertained what is the matter with the milk".

And on a note of dejection the final minute book entry for the year read: "It was resolved to lower the price of cheese to 5½d a lb." The new year (1884) was no more than three weeks old

(Continued on page 55)

George Farquhar made his name for cheese exports



In 1886, George Farquhar moved to Hawkes Bay, working for a term with the well-known firm of Williams and Kettle Ltd, whose stock and station business was then in the pioneer phase. But in the 1890s he was back in Otago as cheesemaker for the Taieri and Peninsula Milk Supply Co., which having taken over the original peninsula co-operative venture extended its operations to the manufacture of butter and cheese because the volume of milk coming from the peninsula and adjoining districts was far in advance of the growing liquid milk requirements of Dunedin.



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 Among other things. The Bank of New Zealand.
 Over a century of service. Meeting new needs.
 Welcoming the 'now' generations.
 The only trading bank owned by New Zealanders.
 Established for New Zealanders. *Your* bank.



Bank of New Zealand

A tradition worth keeping

SO IT ALL BEGAN

(Continued from page 53)

when a brief meeting resolved to "sell the cheese at 5d a lb".

The last meeting for that year was held on November 22. It marked the end of the Peninsula's cheesemaking days. The company could no longer carry on. There were stronger and better organised business ventures making an appearance and among these was the Taieri & Peninsula Milk Supply Company Limited, established in 1884 to deliver milk to Dunedin and environs. There was soon such an abundance of milk that this company was obliged to launch out into the milk processing industry.

The T. & P. company absorbed many smaller dairying operations, none of them probably any larger than the earlier Peninsula ventures.

Appreciation

Much more could be written about the early days of dairying effort on the Peninsula. The fact that a good deal of this history does survive is a tribute to families and friends interested enough in preserving pioneer records of effort and enterprise.

This record itself would not be complete without a last reference to Springfield, a property favoured not only for its position on the Peninsula, but also for its distinctive and sturdy stone homestead, passed from the Mathieson family to the late Mr E. Y. Aitken, another of Otago's notable dairy industry figures, and then to his son-in-law, Mr G. T. Sabiston.

Mr Sabiston has gone to great lengths to modernise the homestead without detracting from its character in any way. It is a tribute to his affection for Springfield that he has accomplished his aims while preserving the line and dignity befitting a homestead already well past its own century and good for probably many more—a homestead that safeguards the birthplace of co-operative dairy history.

Acknowledgment

The author acknowledges with gratitude the help given him by the Manager of the Dunedin branch of the N.Z. Dairy Board, Mr Peter Grant, Hocken Library and Otago Early Settlers' Association, Alexander Turnbull and General Assembly libraries, Mr G. T. Sabiston of historic "Springfield", Mr Walter Mathieson of Dunedin, Mrs E. G. Woods of Nelson, Dr G. M. Moir of Christchurch, and last, but far from least, the inspiration of the late Mr H. G. Philpott, author of "A History of the New Zealand Dairy Industry" (1937).

First manager, secretary and cheesemaker!

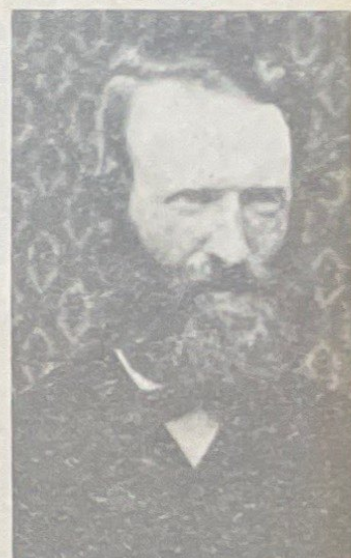
John Laidlaw McGregor, Scottish immigrant and settler, must in all justice be described as a key figure in the affairs of New Zealand's first co-operative dairy company, for he was not only the Otago Peninsula Cheese Factory Company's first manager but also its secretary and, after training by Mrs Catherine Mathieson, wife of the company's first chairman, its cheesemaker as well.

JUST HOW much tuition in cheesemaking he had from Mrs Mathieson is not known. It is probable that he had acquired at least some small knowledge of the making of Dunlop cheese prior to leaving Scotland. The pioneer company's "make" —

nearly 10,000lb — in its first season was considerable in view of the "factory's" limitations.

After four years of operation, the original company was reconstituted under a new name and the initial meeting of shareholders was held in McGregor's house. John McGregor increased his shareholding to 10, but when the 1875 season was about to open, he withdrew from the new company and was succeeded as manager and cheesemaker by George Farquhar.

Whatever the reason for his withdrawal, McGregor transferred his activities to a proprietary cheese company on the peninsula which built a factory at Harbour Cone and operated there from 1876 onwards until it was destroyed in a bushfire



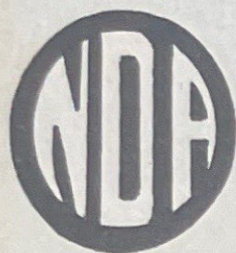
in 1881. The company's cheesemaker, a man named Edward Ward, was taught cheesemaking by John McGregor.

Old whey tub has a new use



This old cast-iron and enamelled tub is one of the original three in which whey was heated for cheesemaking in the kitchen wing of the old Mathieson homestead. It now serves as a trough for watering stock with natural spring water on the same farm property at Springfield, Otago Peninsula.

CONGRATULATIONS TO NEW ZEALAND'S CO-OPERATIVE DAIRY INDUSTRY ON ITS CENTENARY



Established in 1894

from

THE NATIONAL DAIRY ASSOCIATION OF NEW ZEALAND LTD.

With kindred national dairy industry organisations we share a sense of pride in the record of achievement of the first hundred years. From the vision and courage of the seven Otago Peninsula settlers in 1871—pioneers in the application of the co-operative concept to dairy product manufacture—has been developed on co-operative principles New Zealand's dairy industry of today—a highly sophisticated food processing complex, the world's largest exporter of dairy products.

The story of the industry's first century is primarily a story of people—people with a sense of purpose, prepared to work hard and make sacrifices to build the productivity of their land and to co-operate in providing organisation, facilities and installations to process and market their production. From humble beginnings has been built the world's most efficient dairy industry, a triumph of co-operative co-ordination from the grass roots to the market place. Up through the years the dairy industry has been singularly fortunate in the men of dedication, breadth of vision and tenacity of purpose who have shaped its destiny, and to them in particular we pay tribute in this centenary year.

For 77 of the last 100 years, the **National Dairy Association** has played its part in providing many of the essential sinews of a great and fast developing industry. And in its earlier years, the annual meetings of our Association were the dairy industry's forum in which many of the progressive ideas which went into the building of dairy industry policy were first hammered out. The concept of co-operative export marketing of dairy produce was debated at national level at our annual meetings from the late nineties onwards. From these beginnings has been moulded the industry's export marketing policy of today.

Within two years of the foundation of the N.D.A. in July, 1894, the Association Directorate was expressing concern at shortcomings in the shipment and marketing of New Zealand dairy products and at the Association's annual meeting in 1901, the Directors were appointed as a selling committee to deal with the output of factories willing to combine and sell jointly in London. But the path to co-operative marketing on a national scale was a thorny one. It was June, 1920, before the New Zealand Producers' Co-operative Marketing Assn. was established on the recommendation of the Association directorate. In September 1922, after lengthy debate at the annual meeting of that year, the Directorate supported the proposal to establish a dairy Export Control Board. In the following year delegates to the Association's annual meeting discussed and approved the proposed Dairy Export Control Bill. This became law in the following year and the first Dairy Board came into being.

To the New Zealand Dairy Board of today we extend our sincere congratulations on a great occasion in dairy industry history. As the statutory head of the industry, charged with the overall responsibility of industry organisation from farm to market, its operations in collaboration with the dairy companies, who represent the core of the whole industry, are without parallel elsewhere in the dairying world.

The Association itself is an example of successful working partnership amongst dairy companies in an organisation to provide the essential requirements of a big and growing industry. Our functions today are concerned with the supply from home and overseas of the industry's needs in many fields.

Our branch activities now cover the whole of the North Island. Our workshops at Hawera and Te Rapa are specialists in stainless steel fabrication for the production of the specialised and sophisticated equipment required for our modern dairy manufacturing plants. The Association was also chosen to manufacture the Ruakura Milking Machine, which has achieved a world wide reputation. We are also in the lead in the milking shed equipment field with our Turn-Style dairy unit.

It was at the wish of the industry and the veterinary club movement that the Association set up its own special department for the supply of glassware, scientific apparatus, veterinary chemicals and animal health products. This service to the veterinary clubs, who are shareholders in the Association, was expanded with the establishment of our own laboratory and manufacturing plant for some animal health products.

We look forward to continuing to provide as efficient a service as the dairy industry's wholly owned supply organisation in its second century as we have in its first.

THE NATIONAL DAIRY ASSOCIATION OF NEW ZEALAND LTD.

N.Z. DAIRY EXPORTER

EVOLUTION OF AN INDUSTRY

Some Dairy Company landmarks of the past 100 years

To attempt anything more than a selection of a few highlights in the story of New Zealand's developing dairy companies after that epic start in 1871 would be to attempt the impossible in the space available. We present these fragments from a vast canvas and apologise for our sins of omission, which are, of necessity, legion. Because this is a commemorative issue, we have concentrated mainly on the early years.

IT WAS eleven long years before the co-operative dairy company concept, pioneered on the Otago peninsula in 1871, was to be attempted again. New Zealand's second co-operative dairy company opened its doors at Flemington on October 30, 1882. But on January 18 of that year, Southland's first dairy factory, a proprietary venture for the first 21 years of its existence, but thereafter a co-operative, made its first cheese. The Edendale factory of the New Zealand and Australian Land Co. was a dual-plant enterprise, equipped for both cheese and buttermaking.

It was an ambitious venture for those times and cost some £1200 to build. The plans came from Canada and the company was subsequently able to recoup some of its cost by claiming the bonus of £500 offered by the Government of the day to the dairy factory on the American principle which first exported 50 tons of cheese or 25 tons of butter.

The Edendale factory qualified with cheese, which was more profitable than butter at that time. It was not until some two years after establishment that substantial quantities of butter were made at Edendale from cream produced by the old pan-skimming system, since the cream separator had not then been introduced in New Zealand.

Slot in history

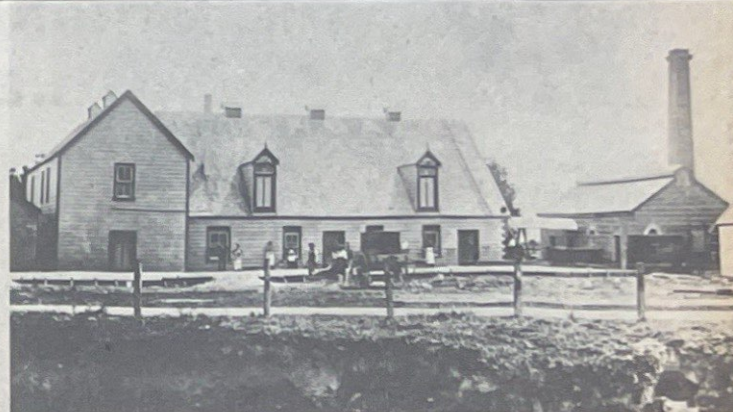
In 1903, the Edendale Estate of the New Zealand and Australian Land Co. was taken over by the Government for closer settlement and the Edendale Co-operative Dairy Co. Ltd was formed to operate the factory and plant. The Edendale company has built its own place in dairy industry history over the past 68 years.

It is generally believed also that right at the outset of its history, the Edendale factory, or its products, played some part in the epic events which started

on February 15, 1882, when the sailing ship *Dunedin* left Port Chalmers on a voyage which was to prove the practicability of refrigerated sea transport and to open up entirely new horizons for the infant dairy industry. Her cargo was mainly meat, but she also carried a small quantity of butter, which, since the New Zealand and Australian Land Co. backed the venture, probably came from Edendale.

Second co-operative

New Zealand's second co-operative dairy factory, referred to earlier as opened October 30, 1884, was the Flemington plant of the Ashburton Cheese and Butter Factory Co. Leading spirit in its establishment was John Bowron, who had a hand in a number of other pioneering dairy enterprises in Canterbury. After some years, this enterprise failed and was taken over by Mr John Grigg, who later leased it to Messrs John and James Sawyers, members of a Scottish family who were to have a con-



An early photograph of the Edendale dual-plant factory of the New Zealand and Australian Land Co., the second factory to open its doors in New Zealand — in 1882. It was taken over by the Edendale Co-operative Dairy Co. Ltd in 1903 (Turnbull Library photo).

siderable impact on New Zealand's dairy industry.

John Sawyers became New Zealand's first Chief Dairy Expert and played a leading part in the formation in 1890 of the Middle District Dairy Association (the title of which was later changed to the South Island Dairy Association), and in 1894 of the National Dairy Association.

The North Island's first co-operative dairy factory was also

opened in 1885—on November 15. The Te Awamutu Cheese and Bacon Co built it for £805, its capacity was 800 gallons daily and it is believed to be the first factory equipped with New Zealand-made plant.

The nine new dairy companies which opened in 1883 included the Greytown Co-operative Dairy Co., which opened on New Year's Day of that year. The memorandum and articles of association of this company, of which the chairman was Mr (later Sir Walter) Buchanan, were drawn up by a local lawyer, Mr Coleman Phillips, and provided the model for co-operative dairy company articles for a long time thereafter. This company made its mark in the cheese industry and operated as a separate entity until the 1950s when it was merged with other companies to form the Wairarapa Co-operative Dairy Co. Ltd.

Taranaki notables

Mr Alfred Brake's proprietary cheese factory, opened at Leperton in 1883, was Taranaki's first. The Maori troubles, lack of a rail link and of satisfactory ports at that time delayed the launching of Taranaki's co-operative dairy industry in any strength until the second half of the 1880s, but they did not deter Alfred Brake, who ran his own enterprise and collected his sup-

(Continued on page 59)



The Moa Farmers' Co-operative Dairy Co. factory in the early 1900s. This factory first operated in 1885 as the Moa Dairy Factory Co. Ltd, Taranaki's first co-operative dairy company.



This shrink package protects a growing export drive

Shrink packaging is not a new idea. We have been packaging foodstuffs and all kinds of products in shrinkable Cryovac films for over 20 years, all round the world.

Here in New Zealand the importance of food packaging has increased tremendously. More and more New Zealanders are processing and packaging food for export.

To help export minded New Zealanders we have been doing everything we can. We have been running packaging seminars, extending every service, offering information accumulated in our years of experience right round the world.

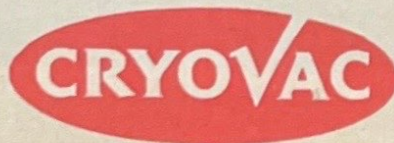
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moulded packaging can be used for almost any kind of product. Anything from beef to lamb, from luncheon sausage to liver. Size and shape doesn't matter.

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We are proud to be associated with the N.Z. Dairy Industry at the time of its centenary and look forward to continuing this association into the future.



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The butter factory of the Tai Tapu Co-operative Dairy Co. Ltd, Canterbury, around the early 1900s. This factory opened in 1889 (Head Collection, Turnbull Library photo).

(Continued from page 57)

ply himself in a two-horse express.

Another notable in early Taranaki dairying history was Chew Chong, the Chinese immigrant who started out as a pedlar, became a storekeeper and subsequently, as a successful businessman, ran his own proprietary dairy company at Eltham and provided the financial backing that enabled many early settlers in that region to stay on their farms.

Chew Chong identified the fungus growing on mahoe, pukatea and tawa trees in the Taranaki bush as similar to an edible fungus which was in short supply in China and regarded as a great delicacy there. He en-

couraged the gathering of the fungus, bought it and established a trade with his native land which from 1875 to 1885 was the major source of income to many Taranaki farmers. In the latter year, the value of the fungus exports was some £72,000.

The first factory to be established for the manufacture of butter only opened at Karere in the Manawatu in 1884 but like many of the companies established at that time, it survived for only a short time.

What subsequently developed into the Moa Farmers' Co-operative Dairy Co. Ltd, which has been a major contributor to Taranaki's dairy production over

(Continued on page 63)



The problems of carting milk to the factory along muddy tracks are evident in this photograph of the morning scene outside a Taranaki dairy factory around the turn of the century. Note the horse-drawn sledge in the foreground (McAllister Collection, Turnbull Library photo).

N.Z. DAIRY EXPORTER



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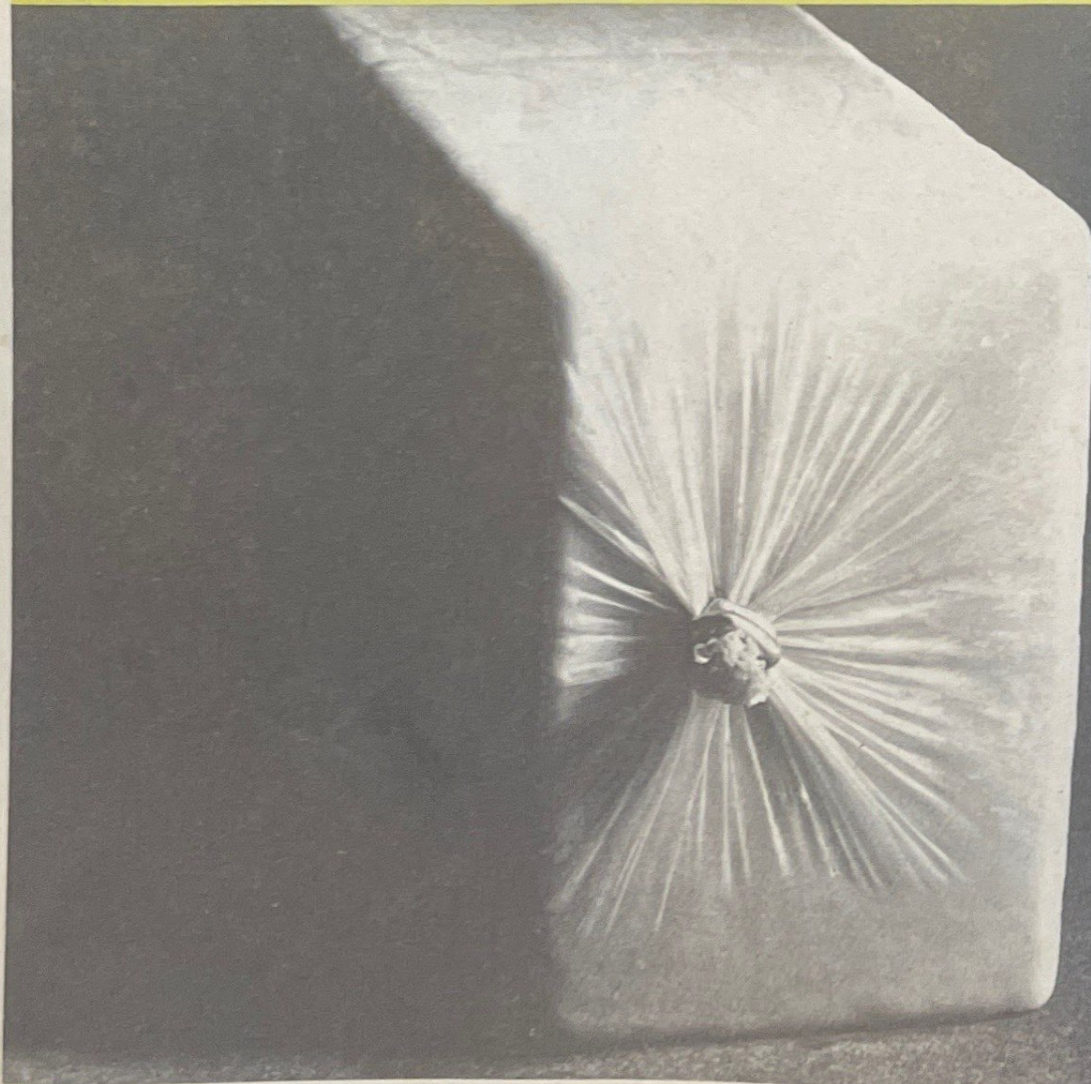
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**Rheem congratulates the dairy industry
on its centenary.**



**During our association
we've helped drum up quality New Zealand
produce for world markets.**



In the last 100 years, the New Zealand Dairy Board has achieved tremendous success in export marketing. And Rheem have helped put New Zealand's dairy exports on the map.

We're major suppliers to the dairy industry of Tipper Tie vacuum packing and clip closure machines for cheese packaging—our drums carry anhydrous milk fats to the world markets.

To keep these valuable export products in peak condition, we take advantage of international techniques and experience to manufacture the highest quality packaging products.

We've enjoyed our association with the dairy industry, and wish it every success in future export ventures.



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Auckland: 475 Rosebank Road, Avondale.
P.O. Box 19011, Avondale.
Phone 885-127.



TIMES HAVE CHANGED- BUT NOT THE DESIRE TO DO A GOOD JOB BETTER

The world demands change – greater efficiency, improved output, better performance.

Full marks to the New Zealand Dairy Industry. In its successful 100 years, it has developed, improved and expanded, not only to keep pace with modern dairying technology, but is now world leader in its field.

Caltex Oil (N.Z.) Ltd is more than aware of the problems that the Dairy Industry has had to overcome. During more than half a century in New Zealand, Caltex, too, has succeeded in making its products leaders in *their* fields.

Caltex is proud to have shared in the Dairy Industry's progress (many of New Zealand's Dairy Companies use Caltex Fuels and Lubricants exclusively) and look forward to remaining 'Partners in Progress' in the Industry's future.

Caltex Cares





The modern shape of New Zealand's dairy industry. The Longburn one of the tankers from the company's fleet arriving (foreground) left the milkpowder plant. The New Zealand milk biscuit is also

plant complex of the Manawatu Co-operative Dairy Co. Ltd, with a load of milk. On the right is the butter factory and on the manufactured on this site (N.Z. Dairy Research Institute photo).

(Continued from page 59)

the years, started out in 1885 as the Moa Farmers' Dairy Co. Intended originally as a butter factory, it was finally opened as a dual plant.

A Taranaki cheese company bearing a name well known in the industry for the past 70-odd years was Opunake, also opened in 1885. This company, the forerunner of the Opunake Co-operative Dairy Co. of today, was so successful in its early phase of operation that in the spring of 1886 a night shift was operated to cope with the heavy flush supply of milk. But three years later, together with the Otakeho and Manaia co-operative cheese companies, it was taken over by the proprietary Crown Dairy Co., which with adequate financial resources bought up other struggling co-operatives and erected other factories until in 1897 it was operating 19 factories and two skimming stations. When it finally closed in 1903, most of its factories, including Opunake, were taken over by co-operative companies.

Forward step

The years from 1885 to 1895 were years of hardship for the early dairyfarmers and the companies they established and all too frequently lost through a combination of low prices, lack of finance and poor communications. But they saw the establishment of an export trade in butter and cheese and of the co-operative dairy company movement which showed steady expansion from then onwards.

The second Dairy Industry

Act, passed in 1894, was a major advance. Its expressed aim was to regulate the manufacture of butter and cheese for export and provide for the purity of the milk used in such manufacture. It introduced the official inspection of dairy factories at frequent intervals, the grading system for dairy produce, the establishment of cool stores, the registration of dairy factories and the use of the registered number of a dairy company in its brand of export.

Progress was really on the march by the turn of the century and the still youthful industry at least well launched as an exporter of dairy products, although a very long way from the dimension required to qualify for its future role as the world's largest exporter of dairy produce. In the year ended March 31, 1900, 8090 tons of butter and 4900 tons of cheese were exported.

The most significant development in the dairy industry in the first decade of the 20th century was the swing to home separation of cream, and the gradual disappearance of the creameries (wholemilk separating stations operated by most butter companies). It was introduced in 1897 by a Mr Geo. Finn, of Finn, Chisholm and Co., Wellington, who sold a number of separators to farmers and after experiencing difficulty in getting a butter factory to take the cream, built their own factory in Cornhill Street, Wellington and distributed home separated butter under the Gold Leaf brand on the Wellington market for many years.

By 1905, home separation,

despite opposition from some dairy companies and not much encouragement from the Dairy Division, was an expanding practice and its progress was accelerated markedly in 1908 when Mr (later Sir William) Goodfellow founded the Waikato Dairy Co. in partnership with Mr F. Blomquist and they based their supply on home separated cream. With the drive and enthusiasm of William Goodfellow to back it, the home separation system spread rapidly through the Waikato from then onwards and other companies were not slow to follow the lead.

Powder and casein

Amongst other significant developments of the first decade of the 20th century in the industry was the pioneering of milkpowder manufacture by Joseph Nathan and Co. Ltd in their butter factory at Makino in 1901. This decade saw a marked expansion of co-operative dairy factories, particularly in North Auckland, where in the 1890's the proprietary concerns, most of them small, had mainly held sway.

The period 1911-20 saw the first casein made in 1911 in a factory at Rapanui near Wanganui. By the 1913-14 season, 22 factories were precipitating casein curd, fifteen in Taranaki and seven in the Waikato.

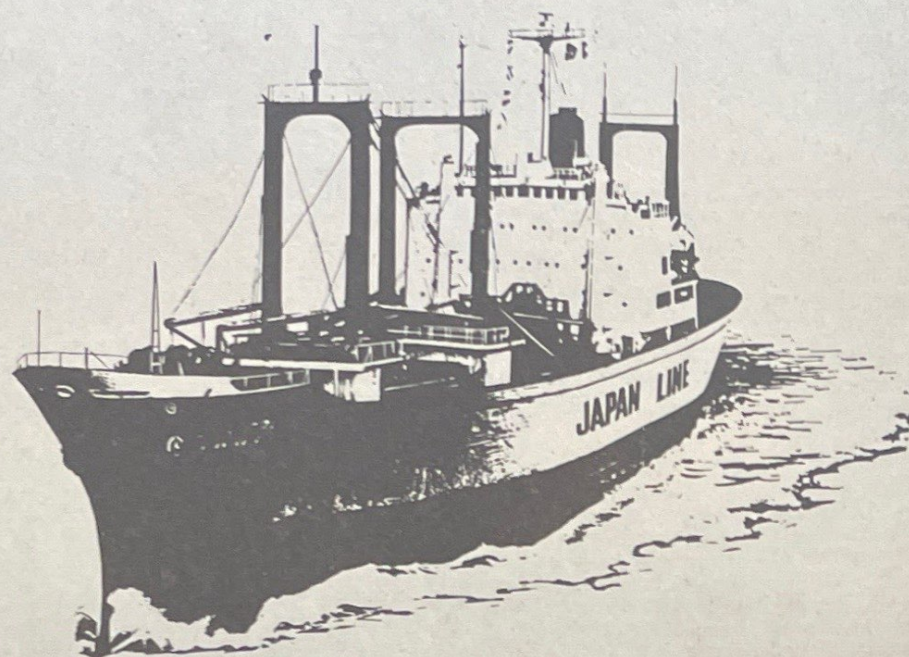
A drying factory at Frankton erected by the New Zealand Dairy Assn. in that year and supplied by the association's skimming stations had a capacity of 1000 tons annually.

The year 1919 saw New Zealand's first major dairy company amalgamation, the merging of

the New Zealand Dairy Association (launched in 1886 by Mr Wesley Spragg and by 1919 producing annually 5600 tons of butter, 942 tons of cheese, 1700 tons of milk powder and 81 tons of casein) with the Waikato Co-operative Dairy Co. founded by Mr William Goodfellow (with an output at that time of 2290 tons of butter and 966 tons of cheese) to form the New Zealand Co-operative Dairy Co. In the following year the new giant absorbed the other major Waikato company, the Thames Valley Co-operative Dairy Co., adding to their manufacturing capacity another 1600 tons of butter and 2700 tons of cheese. Backed by the genius of William Goodfellow as managing director, the new company soon proved that in size and unity lay increased strength and flexibility.

The full advantages of large scale dairy company operation in terms of flexibility and capacity to switch supply to meet the requirements of the marketplace came later however, with the development of the milk tanker, the New Zealand dairy industry's mobile pipeline. The credit for pioneering large scale milk tanker operation again rests with the New Zealand Co-operative Dairy Co: and in particular with its chairman of the fifties, Sir Andrew Hayward. Its advantages were so readily apparent that it was rapidly adopted by other companies. In the wake of the milk tanker came the successive dairy company amalgamations which have brought new dimensions in production terms and the economies of scale to dairy factory operations in this country over the past decade.

FROM ONE PIONEER TO ANOTHER . . .



CONGRATULATIONS

TO THE NEW ZEALAND DAIRY INDUSTRY FROM THE PIONEERS OF DIRECT
SHIPPING SERVICES BETWEEN NEW ZEALAND AND JAPAN.

This year Japan Line celebrates its 20th year in the service, offering monthly sailings in each direction, with refrigerated and general cargo space.

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THEN

AS IT WAS IN 1902: The Te Rapa creamery of the New Zealand Dairy Association. Suppliers arriving in their carts with the day's milk (Turnbull Library photo).

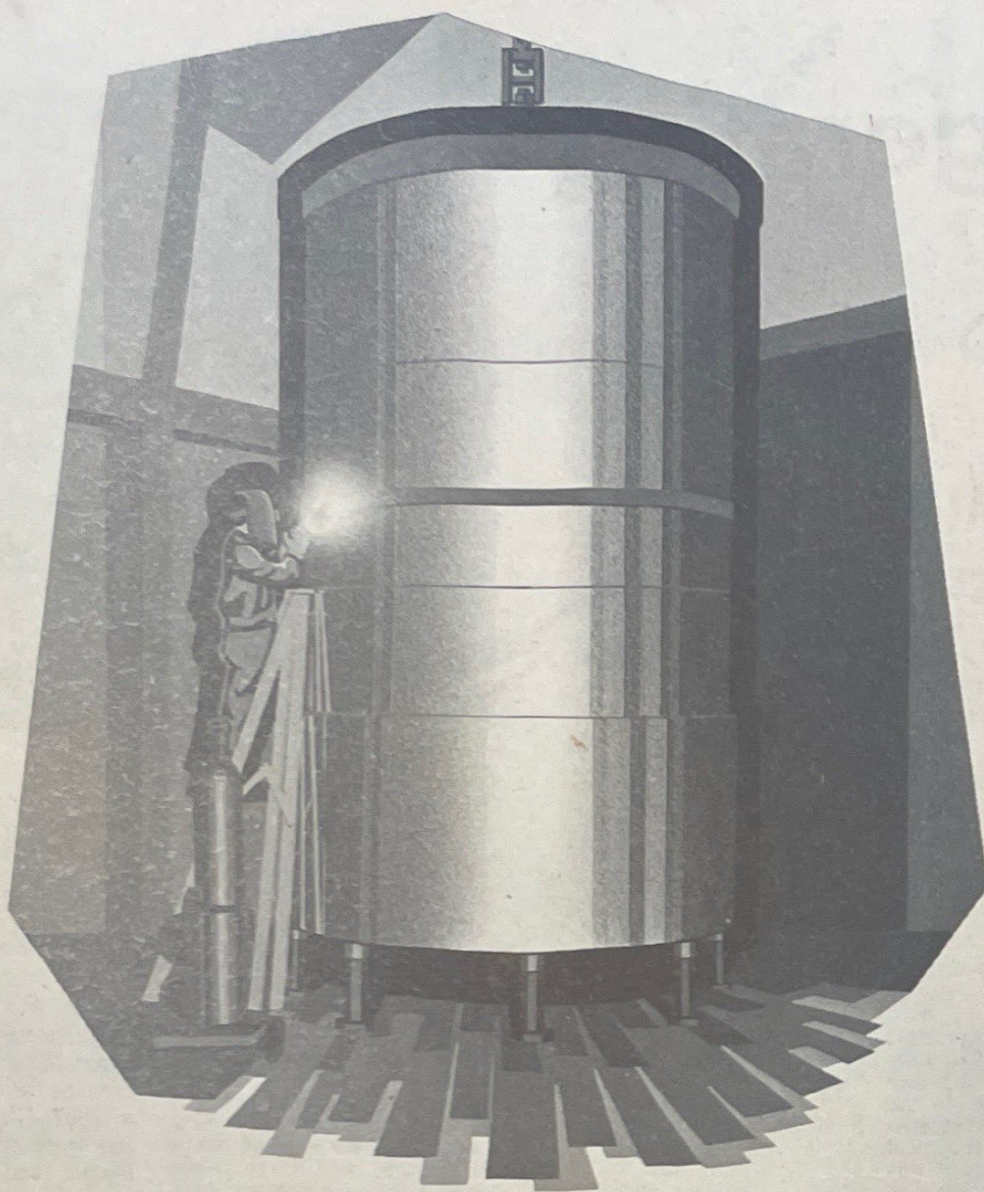


AS IT IS TODAY: The Te Rapa milkpowder factory of 1971, with a peak production capacity of 40,000 tons a year, showing also some of the fleet of 52 stainless steel milk tankers which the New Zealand Co-operative Dairy Company uses to collect milk for this huge plant.

and NOW

the measure of Dairy Industry progress





equipping the rural industries

What the future holds we don't know, but much of our past has certainly hinged on rural industries and, we believe, will continue to do so. Our dairying has been called the most efficient in the world. And with justification. Engineering has played an important secondary role in developing

this primary industry such as the design and construction of the most modern and efficient factory plants. NZIG has been well represented by supplying equipment and gases for the fabrication of stainless steel milk skimming vats, cheese vats and butter churns, transportation tankers, milking shed equipment — the list is endless. Just another example of NZIG's important role in assisting the demands of New Zealand industry today.



**New Zealand Industrial
Gases Limited**

Refrigeration

A COLD LEVER TO ECONOMIC WARMTH

Refrigeration makes the dairying world go round — so far as New Zealand is concerned at least. Without it the vast earning power of New Zealand's dairy industry would have been thwarted. Paradoxically, refrigeration can be said to have warmed our economic heart.

IT WILL be 90 years ago next February since the first tiny consignment of New Zealand butter was successfully carried to the British market by refrigerated ship, an astonishing technical achievement at that time. It was a voyage of destiny, leading to the present spider's web pattern of trade routes from New Zealand to more than 100 markets around the world.

It was the sailing ship "Dunedin" that pioneered the trade with a cargo of sheep and lamb carcasses, and that small amount of butter. On February 15, 1882, she dipped out of the Otago harbour of Port Chalmers with the fervent hopes of a virile young farming community whose rapidly expanding production had been piling up on the home market.

Triumph

Ninety-eight days later she arrived in triumph in London, for it was soon found that all the frozen cargo had travelled in perfect condition. The farmers of a lusty Pacific nation had found a link between their bountiful pastures and the dinner tables of their homeland. The liaison was to become the



cornerstone of New Zealand's economy.

The historic voyage of the "Dunedin" had plenty of incident. The Bell-Colman cold air refrigerating plant that had been fitted in the ship, together with insulated meat chambers, relied on boilers that had been fitted on the deck. Several times sparks from the ugly smoke-stack set fire to the sails, and in the tropics the ventilating system proved deficient.

Captain's courage

Cold air was not reaching the upper parts of the meat chambers and it was the ship's master, Captain Whitson, who crawled into the main air trunk to rectify the trouble. While cutting fresh openings for the cold air, he became so numbed by the frost that he was unable to move, and was rescued from his perilous position by the mate, who crawled in to tie a rope to his ankles so that he could be pulled free.

Several more sailing ships were fitted with insulated chambers to develop the trade, but soon refrigerated steamships were monopolising the business.

It must be remembered that our butter at that time was virtually home-made and anything but uniform in texture and

flavour. A small amount of salted butter was exported to Australia.

The "Lady Jocelyn" appears to have carried the second shipment of butter to Britain in 1883. She took the first cargo of frozen meat from Wellington, and there were seven kegs of butter as well.

By April 18, 1894, "The Times" of London was reporting: "The 'Gothic' arrived in the Royal Albert Dock on her return trip three days ahead of her itinerary, after one of the quickest passages yet made from New Zealand. The 'Gothic' is the first steamer in the New Zealand service fitted with Hall's Carbonic Anhydride system of refrigeration, and the 70,000 carcasses of mutton and 2400 packages of butter she brought are stated to have arrived in perfect condition."

On land too

This quotation was included in a catalogue of J. & E. Hall Ltd., Dartford Iron Works, Kent, and has been made available to the "Exporter" by Ellis Hardie Symington Ltd., the present New Zealand agents of that original English firm.

The benefits of refrigeration were not being confined to ships.

An artist's impression of the sailing ship "Dunedin" leaving Port Chalmers with the first consignment of refrigerated dairy produce for the United Kingdom in 1882. The ship was lost without trace on a later voyage to Britain and it was presumed that she ran on to an iceberg off Cape Horn.

From another of Hall's catalogues came this extract from the "Wairarapa Daily News" of 1894: "Now that the value of refrigeration in our dairies is so universally acknowledged, it behoves those who are connected with this great Colonial industry to examine into the respective merits of the different refrigerating machines that are being offered for sale. Amongst these Messrs J. & E. Hall's Carbonic Anhydride machine has attracted a good deal of attention, and the excellent work it does is placing it ahead of all others. A number of these machines are at work all over the Colony, giving ample satisfaction."

An interesting description of the system of separating used in those early days of export manu-

(Continued on page 71)