

The Milk Industry as Conducted in Denmark

Legation Secretary Richardson Tells of Its Many Points Of Excellence.

The following report concerning the manner in which the milk supply and the manufacture of butter are conducted in Denmark is furnished by Secy. of Legation Charles Richardson of Copenhagen:

The Copenhagen Milk Supply company was started in 1878 by some of the foremost medical authorities of that city. At present the company is supplied with milk from about 40 farms, situated within a radius of from 16 to 18 miles. Over 5,000 gallons of milk are delivered daily by rail. The ice storehouse can hold 500 tons of ice.

The most rigid regulations as to feeding and management of cows are enforced by the company. In order to secure a uniform temperature of milk special milking cans are provided. They are cylindrical in shape and fitted with rubber, gular bottoms, packed with cotton, upon which surface the milk falls. The milk must be delivered in these cans, at the nearest railway station. Veterinary surgeons employed by the company make fortnightly inspections of all the farms, and the Copenhagen test is insisted upon. Any cow declared by the surgeon to be suffering from tuberculosis must be immediately removed from the herd. Immediately also pay regular visits to inspect these farms and enforce the rules and special dairymaids are employed whose business it is to visit the farms and enforce the prescribed milking conditions. In short, supervision is pushed to the greatest extent in order to guarantee a pure and uniform milk supply.

TREATMENT OF THE MILK ON ARRIVAL.

The milk is brought into the dairy about 5 o'clock in the morning, having been skimmed and kept in cans in the ice room. On its arrival the milk is weighed, its temperature is taken, and if this should be over 8 degrees C. it is rejected and the contracting farm is warned of this defect and receives no compensation. If the temperature test is satisfactory, the milk is tested by a skilled dairymaid and an analysis of its percentage of butter fat is taken. The next process is that of filtering. The milk is poured through gravel layers into a storage tank, whence it is drawn off and bottled. The filter and tanks are changed daily. The milk is drawn off into glass bottles, corked by a mechanical device and the bottles are sealed and set down with thread. The business of drawing off the milk, bottling, and setting down the corks is done entirely by women in spotlessly clean white dresses and caps. The bottles are then put into racks, packed in ice for the night, and distributed in the company's vans early next morning. The filtering and bottling of the cream is carried on in the same way.

The cleaning of milk cans is an important feature. The cans are first sprayed with cold water, then they are thoroughly scrubbed inside and out with hot water and soda. They are then fixed on a slanting wheel, which rotates slowly through a bath of lime water and finally sterilized, which is effected by spraying with steam jets. The bottles do not go through quite the same complete process. They are simply washed with soda and water, and the inside is cleaned by means of a specially worked revolving brush and come out with cold water. They do not appear to undergo any form of sterilization.

All profits exceeding 5 per cent go toward reducing the price of milk which is sold to charitable institutions, such as orphanages, homes, etc. The price paid

to the farmers who supply the company with milk is between 16 and 18 cents a gallon, and the sale prices of the milk are 4 1/2 cents a quart for whole milk, 2 1/2 cents for half-skimmed milk and 6 cents for pasteurized milk for infants.

BUTTER MANUFACTURE.

Denmark exports to Great Britain over \$45,000,000 worth of butter yearly, and though it is well known that the success of the export trade rests largely upon the economic workings of its co-operative principle, the realization of what co-operative dairying means is not fully impressed upon our minds until we are brought face to face with a practical instance. Trifolium dairy, the largest co-operative dairy, uses about 77,000 pounds of milk daily, and the output of butter varies from 12 to 14 tons a week. Special vans owned by the association, whose members consist chiefly of the large farmers, collect the milk daily from a radius of about 12 miles. The milk arrives at the dairy between the hours of 7 and 11

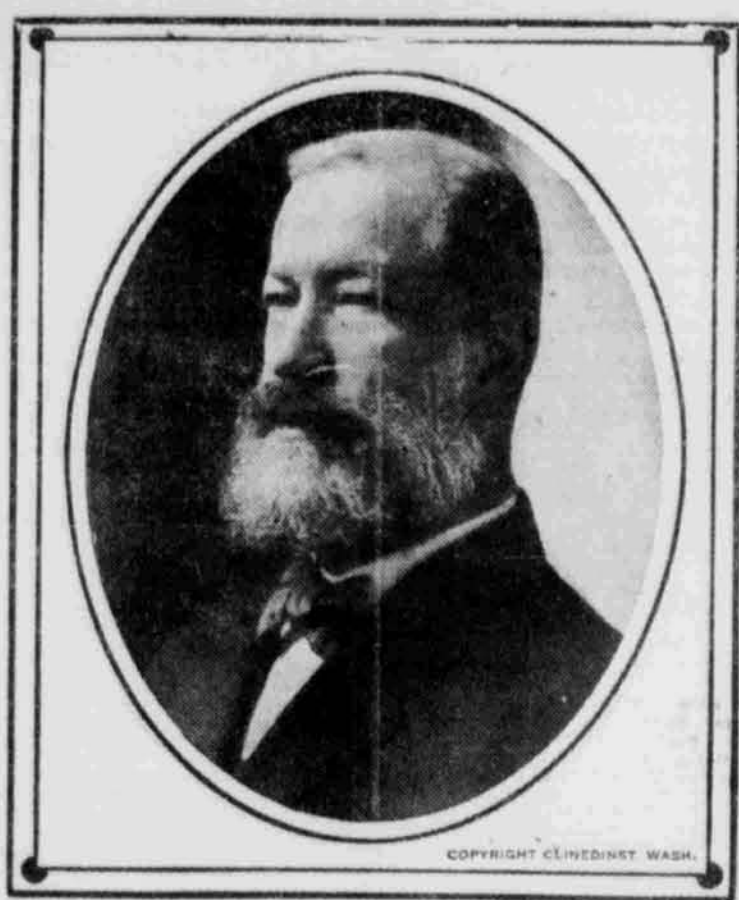
portion is sold in Denmark.

Women are chiefly employed in the butter-making department. Their wages vary from \$4.08 to \$9.12, with board and lodging, a month. The butter is worked partly by hand, both before and after it passes under the circular wooden butter presses. It is then packed either in 4-pound boxes or in casks holding 110 pounds, and placed in cooling rooms with insulated roofs, for two days. Here, as in all milk-supply companies and dairies in Denmark, there is a large stock of ice and all the dairy utensils undergo a systematic and thorough cleansing each day. The Danish milk is not considered as rich as milk obtained from Jersey cows.

The number of cows in Denmark in 1902 was 1,066,528, of which somewhat less than 800,000 were on farms delivering milk to the co-operative dairies. In the Trifolium dairy power separators are used. The machinery is almost invariably supplied with steam-driven centrifugal machines, and has one or more separators and pasteurizers, according to the amount of milk dealt with.

PRIVATE AND CO-OPERATIVE DAIRIES.

The kind of organization employed in Denmark is mainly co-operative. In 1907 there were in all about 1,085, with 158,170 members. As a rule, the members are bound to the enterprise for a



HENRY GANNETT.

Prof. Gannett, chief geologist of the United States Geological survey, and chairman of the committee which recently passed on Commander Peary's arctic records.

In the morning, most of it passes immediately through a separator, but a certain amount is set aside to be used with the separated milk for the production of cheese.

Pasteurizers involving a temperature of 176 degrees F., and refrigerators are attached to each separator, of which there are six in daily use, the separated cream passing through the storage vats, where it remains for 24 hours before being churned into butter. The separated milk is conveyed by pipes into the cheese vats, in which the process of agitating the curdled milk is entirely manual. Most of the cheese is sent to Germany, but a certain pro-

portion of 10 years. The capital required to start an average Danish creamery, of which there were 1,345 in 1908, varies from \$5,532 to \$8,290.

The price of the milk depends on its proportion of butter fat, but the average price paid to the farmer is about 12 cents a gallon. This is the price in the country districts, but, as has already been stated, the Copenhagen Milk company pays a higher rate. With regard to the skimmed milk, butter-milk, or by-product, it may be said that nothing is wasted, for that which is not retained for cheese-making purposes is sold at a very low price to the farmer for pig feed.

the British, the last position held by them in the colonies.

1584—Battle of Mission Ridge, Tenn.

1585—Thomas Andrews Hendricks, vice president of the United States, died; born 1819.

1586—Erasmus Brooks, noted New York journalist and politician, died; born 1815.

1592—Congressman Charles O'Neill called "the father of the house," died; born 1821.

1592—Col. Thomas P. Ochiltree, noted Texan wit, died; born 1840.

1596—Oliver Wolcott, one of the "signers," born; died 1757.

1775—The Sandwich Islands discovered by Capt. Cook.

1905—The 25th anniversary of the settlement of the Jews in America observed throughout the country.

1746—Robert R. Livingston, statesman, born; died 1813.

1793—Lodovico Cocchi, noted Kentucky soldier, pioneer and lawyer, born; died 1881.

1809—Frances Anne Kemble, celebrated English born actress, reader and author whose professional and social accomplishments delighted American circles for half a century, born in London; died 1893.

1873—Richard Yates, "war governor" of Illinois, died; born 1818.

1892—Scarcely over the comet predicted to strike the earth.

1908—Charles W. Coudrock, the oldest actor on the American stage, died; born 1818.

A CARD.

This is to certify that all druggists are authorized to refund your money if Foley's Honey and Tar fails to cure your cough or cold. It stops the cough, loosens the lungs and prevents serious results from a cold, prevents pneumonia and consumption. Contains no opiates. The genuine is in a yellow package. Refuse substitutes. Schramm-Johnson Drugs, Salt Lake City.

DOLLS DOLLS DOLLS

Buy your Christmas doll now, our line is ready. Every style. C. E. Savage Co., 12-14 Main Street.

EXAMINATION OF BARBERS.

The State Board of Examiners of Barbers will meet for the examination of applicants at Secretary's office 17 W. S. Temple, Salt Lake City on Nov. 22 and 23, 1909.

BY ORDER OF THE BOARD. D. WATTS, Secy.

Signs that Attract—Hamlin—Paints. Both phones.

The directory of the Authorities of the Church, just issued. Free at the Deseret News Office, or sent to any address upon receipt of 2c postage.

SIX BEST SELLING BOOKS.

RECORD FOR OCTOBER. According to the foregoing lists, the six books (fiction) which have sold best in the order of demand during the month are:

1. "Truxton King" McCutcheon, \$1.50
2. "The Green Girl" MacGuthrie, \$1.50
3. "The Silver Horde" Beach, \$1.50
4. "A Certain Rich Man" White, \$1.50
5. "The Danger Mark" Chambers, \$1.50
6. "The Calling of Dan Matthews" Wright, \$1.50

For sale at the DESERET NEWS BOOK STORE.

NEXT WEEK IN HISTORY.

NOVEMBER 21.

181—Public honors extended to the Grand Duke Alexis of Russia in New York city.

1894—Charles Francis Adams, author and diplomat, who was United States minister to England during the Civil war and an arbitrator in the Alabama claims case, died; born 1807.

1908—The peace commissioners announced that the United States would demand a treaty of cessation of the entire Philippine archipelago upon payment to Spain of \$20,000,000.

1908—Garret A. Hobart, vice president of the United States, died; born 1844.

NOVEMBER 22.

186—Robert Cavalier Sieur de la Salle, explorer of the Mississippi valley, born; killed in Texas by mutinous followers in 1687.

1786—John Hanson, first president of the Continental congress under the articles of confederation, died; born 1712.

187—Henry Wilson, distinguished senator of the Civil war era, died while vice-president; born 1812.

1902—Tharion Weed, noted journalist and politician of New York, died; born 1797.

NOVEMBER 23.

1903—General George H. Stuart, a noted Marylander in the Confederate army, died; born 1828.

1804—Franklin Pierce, fourteenth president of the United States, born; died 1869.

1814—Elbridge Gerry, statesman, one of the "signers," died; born 1744.

1816—Charlotte Cushman, tragic actress, born; died 1874.

1896—Maurice Frederic De Haas, noted marine artist, died; born 1832.

1907—Professor Asaph Hall, well known astronomer, died; born 1829.

NOVEMBER 24.

1807—Joseph Brant (Thayendanegea), famous Mohawk chief, died in Canada.

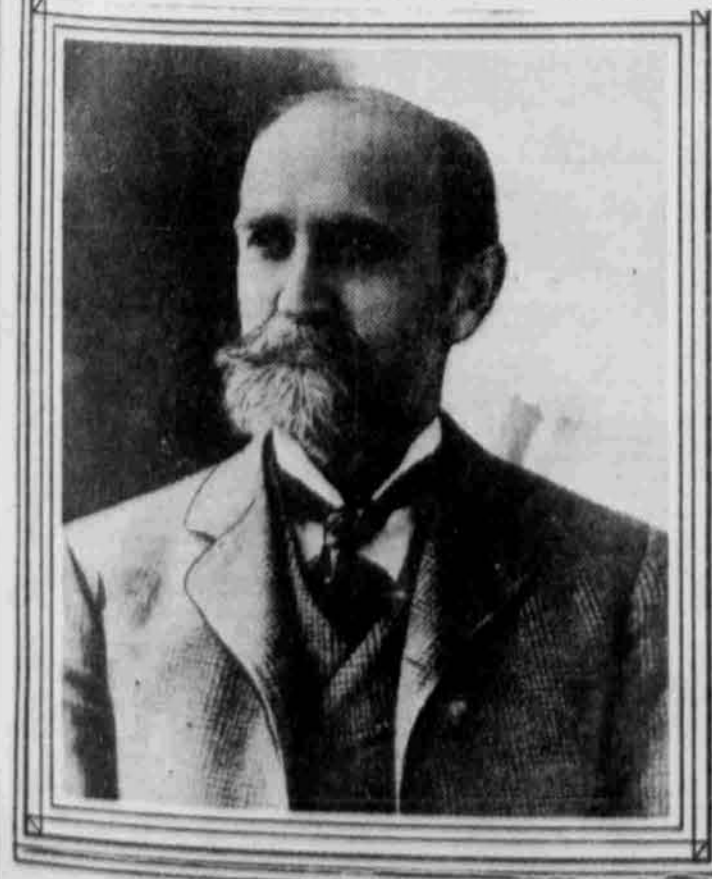
1890—August Belmont, noted banker and politician, died; born 1816.

1892—The Homestead murder trial resulted in acquittal of the rioters who fired upon the Pinkerton men.

1903—Julian Rik, talented landscape painter, died.

NOVEMBER 25.

1785—Evacuation of New York City by



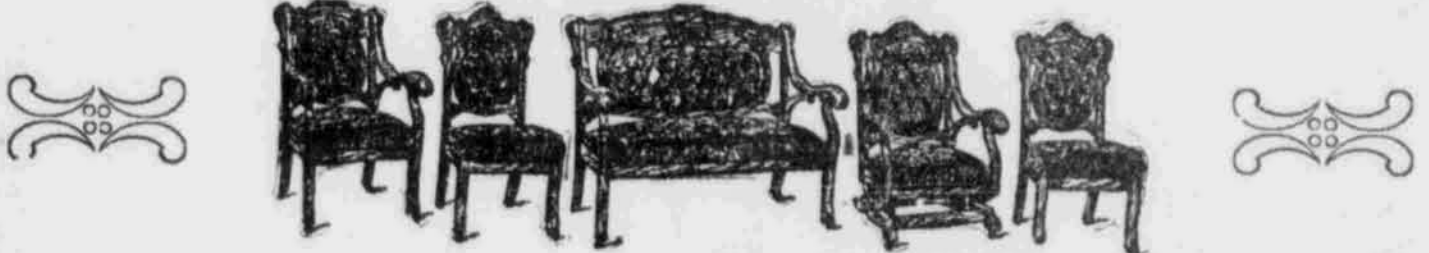
OTTO H. TITTMAN.

Mr. Tittman is superintendent of the United States coast and geodetic survey and one of the members of the committee which recently passed on Commander Peary's arctic records.

Freed's

Thanksgiving Sale

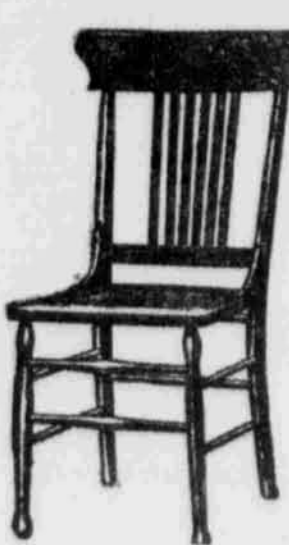
You are going to have a nice Thanksgiving Dinner. Are you not? Well then if so now is the time to buy that new set of chairs, table or in fact any article in the dining room that may be needed to help make the dinner a grand success. Next week we will place on sale our entire line of dining room furniture at special prices. This sale will include all the very latest designs and finishes that the market affords. Below are a few articles at extra special prices for this special occasion and at prices that should appeal to you.



Is your parlor suite in good shape to receive your Thanksgiving guests, if not, you should take advantage of this special offer on this extra special five-piece mahogany suite. Our regular price on this suite was \$65.00. Special Thanksgiving week, only **\$34.75**



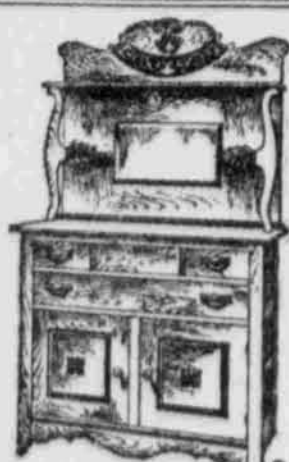
I will be on sale all week, come in and see me. I will assure you perfect comfort at all times. I am made of solid oak, with a very fine finish, I am worth \$2.50 any time, but next week they say, only **\$1.25**



Special, this solid oak cane seat chair, comes in golden finish, a splendid value at \$2.25, next week, only **\$1.25**



I have been selected from Freed's line, you know the kind it pays to buy. My real value was \$2.25, but they will cut me next week, to **\$1.25**



This solid oak sideboard will be on sale next week as long as they last at the extra low price—**\$13.75**



Next week we will place on sale this full size quartersawed oak China Closet. It is finished in the golden oak and has 3 full size shelves, a good value at \$35.00. Next week, only **\$16.50**

We will place on sale for Monday only—a neat mission tabourette in W. O. finish, it is 20 inches long, 10 inches wide and stands 16 inches high. On account of not having cut of same we cannot show picture. Special Monday, only **65c**

Freed's Monday Specials

We will also place on sale for Monday only, an entirely different style tabourette in the mission effect and W. O. finish, this one is 12 inches square on top and stands 24 inches high, is good value at \$2.50, for Monday, only **\$1.15**

A Happy Thanksgiving To All.

Freed Furniture & Carpet Co.

18 to 40 East 3rd. South St.

Your Credit Is Good.