

being removed. The racks extend along the sides of the passage, so that all the food given may be easily put into them from the passage into each pen. The lambing pens are shown in the sketch, as also the silo, the cellar, the wool room, and the feed room. The silo is 24 feet high and is made of 2½ inch matched staves. It rests upon a floor of bricks laid in cement, a double tier of bricks being laid under the part on which the staves rest.

The plan of the loft is shown in Fig. 4. It is amply capacious to hold food supplies for a whole winter, and also bedding, even where experimental feeding is carried on. The water is brought in pipes, and is drawn from hydrants in the passage. From these it will be conveyed by means of hose into small tubs in the various divisions.

This barn, which some good authorities have pronounced the best sheep barn in all the west, is located in a field which contains between ten and eleven acres, and it is the intention to keep all the sheep on the farm, about one hundred head, in this field through the summer season on the food which it produces. Some of the crops grown will be devoted to sowing uses, but the larger portion thereof will be pastured.

One hundred lambs were fed in the barn the past winter. They made from eleven to twelve pounds of gain each month on dry food. The bright sunshine of the winter season in the North-west is eminently favorable to the fattening of sheep. The dryness of the air and the steady character of the weather enables them to follow their natural inclination to spend most of their time out of doors.

THOMAS SHAW.

Minnesota University Experiment Farm

**HUNDRED POINTS OF AYRESHIRE COW (SCOTCH);**

Adopted 19th Feb. 1884.

Points.

- 1st. Head short, forehead wide, nose fine between the muzzle and eyes, muzzle large, eyes full and lively, horns wide set on, inclining upwards ..... 10
- 2nd. Neck moderately long and straight from head to top of shoulder, free from loose skin on under side, fine at its junction with the head, and enlarging symmetrically towards the shoulder ..... 5
- 3rd. Forequarters, shoulders sloping, withers fine, chest sufficiently broad and deep to ensure constitution; brisket and whole forequarters light, the cow gradually increasing in depth and width backwards ..... 5
- 4th. Back short and straight, spine well defined, especially at the shoulders, short ribs arched, the body deep at the flank ..... 10
- 5th. Hind quarters long, broad and straight, hook boxes wide apart, and not overlaid with fat thighs deep and broad. Tail long and slender, and set on level with the back ..... 8
- 6th. Udder conspicuous and not fleshy, hinder part broad and firmly attached to the body, the sole nearly level and extending well forward, milk veins about udder and abdomen well developed; the teats from 2 to 2½ inches in length, equal in thickness being in proportion to the length, hanging perpendicularly their distan-

- ce apart at the sides should be equal to about (1-3) one third of the length of the vessel and across about one half of the breadth.... 33
  - 7th. Legs short in proportion to size. bones fine, joints firm..... 3
  - 8th. Skin soft and elastic and covered with soft close woolly hair. 5
  - 9th. Colour red of any shade, brown or white, or a little mixture of these, each colour being distinctly defined, brindle or black and white not in favor..... 3
  - 10th. Average live weight in full milk, 1176 lbs..... 8
  - 11th. General appearance including style and movement..... 10
- Perfection..... 100

**DAIRY EXPERIMENTS AT THE ONTARIO AGRICULTURAL COLLEGE.**

We made some extracts last week, in regard to the relative efficiency of the three methods of creaming, from the excellent report of the Professor of Dairying at the Ontario Agricultural College, for 1895, and give below some further extracts from the same report, which treat of other subjects:

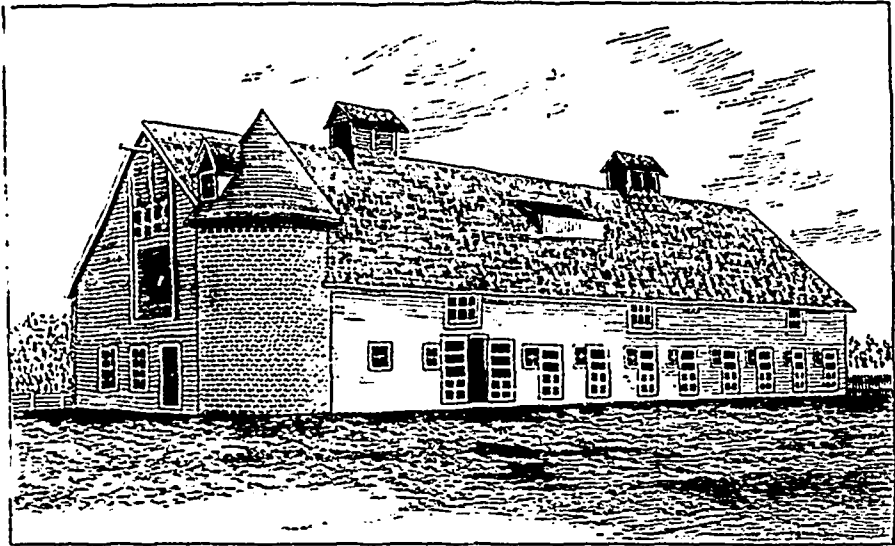
**SWEET CREAM BUTTER**

For some four years we have been making experiments with churning sweet cream. Our results have been practically the same throughout, viz: that butter can be made from sweet

During 1895 eighteen trials were made, in which 1,919 lbs. of cream were churned at an average temperature of 45.80 at the beginning, and 55.40 at the end. The time required for churning ranged from half an hour to one hour and fifty-five minutes, with an average time of one hour. The average percentage of fat in the buttermilk was 6.223.

**RIPENING CREAM**

The most difficult part of the butter-maker's task, and the one requiring the most skill and good judgment, is the proper ripening of the cream. A number of different "starters" were used in our dairy during the past season. Of



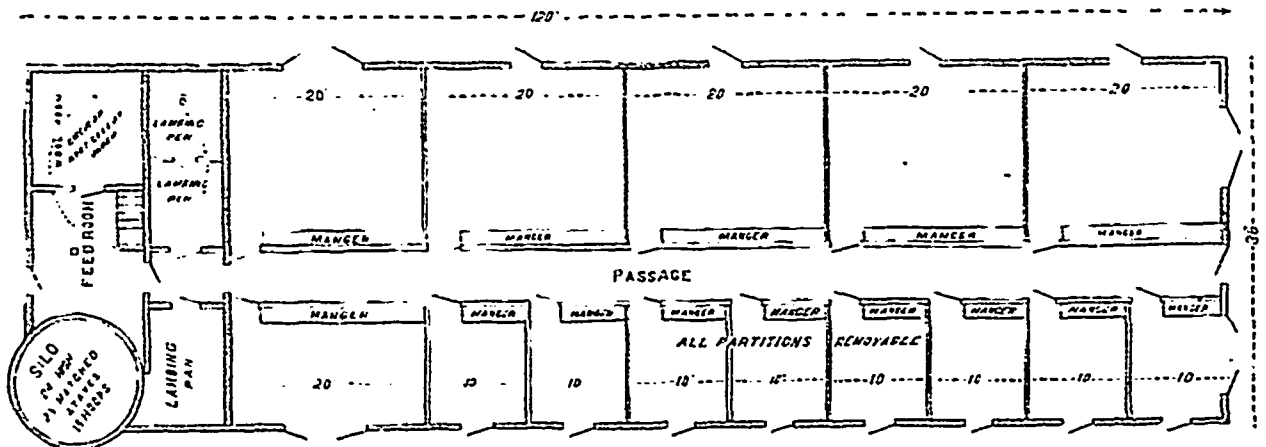
New Sheep Barn, Minnesota Experiment Farm.

There is no scale of points for a bull but when judging them, I am very particular that they have a good head, good long neck, with no loosed skin under jaw. Fine shoulder, the back bone being an inch or two higher than the shoulder blades.—No hole behind the shoulders. The ribs should join in quite level; flat and strong made across the kidneys. Short from the shoulder to the kidneys and "long quarters."

cream which will suit a certain class of customers, who like mild, fresh, creamy flavored butter; but by the majority of persons of Canada, ripened cream butter is liked better. Other points we have learned, are:

1. We must churn sweet cream at a very low temperature (45o or below) in order to obtain all the butter. Churning at ordinary temperatures means a great loss of fat in the buttermilk.

all the "pure cultures" which we have tried, there appears to be none that produced so marked an effect on the flavor of cream and butter as Conn's Bacillus No. 41. Between August 6th and the 10th, a similar flavor to that produced by B. 41 was produced in the cream and butter by using a starter made in the ordinary way, viz: by heating some skim milk to 90o and allowing it to sour. In cream-gather-



Ground Plan of Sheep Barn, Minnesota University Experiment Farm.

When viewed sideways, I am "very particular" that they should be "deeper" behind than in front and the belly should be "deep at the flank" and properly joined and would, especially looking to "deep milking qualities," always prefer a deep flank, supposing the animal was flat on the ribs, to a round ribbed light flanked animal. The teats well pronounced and wide apart.

Cream rich in butter fat (25 to 30 p. c.) gives best results.

2. Sweet cream butter does not possess "keeping quality" the same as ripened cream butter. We have found that it quickly goes off in flavor and does not improve or take on the flavor of ripened cream butter as claimed by some.

3. The temperature of the cream usually rises about 10o in the process of churning, indicating that the low temperature is not suitable for bringing the butter (yet necessary to start with) in order to gather all the particles of fat.

ing creameries, where it is difficult sometimes to get a good flavor in the or in fact at any creamery or dairy where the flavor of the butter is not first-class, we would recommend a trial of Dr. Conn's B. 41.

As a "starter" for ordinary creamery work, we would recommend pasteurizing the skim milk (heating to 170o for 20 minutes) cooling it to 85o, and then adding about 5 p. c., of good flavored buttermilk, or any "starter" of good flavor, in order to obtain a uniformly good flavored cream and butter from day to day. Add from 5 to 10 p. c., of this starter to the cream, and it will re-