

farmers would be disseminated, coupled with the experience of scientific men, and in consequence make the farmers' business more successful.

F. L. Fuller, Superintendent of the Model Farm, Truro, gave a paper on

"Care and Application of Farm Manures," which brought out considerable discussion as to the use of gypsum as a means of preventing the escape of ammonia in liquid manures, the consensus of opinion being that the use of gypsum arrested fermentation and stopped the loss of ammonia.

Prof. Fletcher, of Ottawa, in an able address on "Fodder Plants," treated the subject in relation to suitable fodder plants for Nova Scotia's climate and soil, and reviewed the work of fodder plants tested in other parts of the Dominion. At Ottawa, for general grass culture, the following mixture had met with good success: 6 lbs. timothy, 4 lbs. meadow fescue, 2 lbs. orchard grass, 1 lb. June grass, add 2 lbs. mammoth clover, 5 lbs. Alsike clover, 2 lbs. alfalfa, and 2 lbs. white Dutch clover. Thorough cultivation of the soil before sowing was very essential.

S. C. Parker, on

"How to Make the Farm Pay," emphasized the need of intensive farming whenever possible. Study the use and application of commercial fertilizers. The farmer should employ more science, book-keeping, and co-operation, depending more on himself than upon the Government for success, making use of the many aids now at the door waiting to be utilized.

The proposed "Fruit and Produce Shipping Company" was given an afternoon for the discussion of its plans, and received the endorsement of the Association.

An address on

"Salient Points in Fruit Growing" was given by Professor E. E. Faville, Director of the U. S. School of Horticulture, which was well received. A review was given of the fruit districts of the Province; the defects and remedies were pointed out; better nursery stock should be purchased, only the sorts of fruits suited to the locality should be planted. In countries near the seaboard and the vicinity of mining centers vegetable growing should be more extensively carried on, and could be made to pay, as proved by experience. Where peaches could be grown in the Province, the Elberta and Louis were promising varieties.

Col. Wm. Blair, of Nappan, addressed the meeting on

"The Farming of the Past and Present." He emphasized the need of scientific education in agriculture. It was the advance of science that had placed the farmers where they were to-day. The experimental farms were all doing good work, but the farmers were not profiting by them as they should. The Governments were doing all in their power to benefit the farming classes.

A. G. Goodacre, Grand Pré, one of the best poultrymen in the Maritime Provinces, read a paper on

"Poultry Keeping," which was a comprehensive review of the principal points in successful breeding, feeding, and caring for poultry. Short addresses were made by G. W. Chipman, Secretary for Agriculture; and Geo. Forrest, Director Experimental Farm, Nappan. A lively discussion took place in reference to the finances of the Association, which was amicably settled.

The following are the officers chosen for the ensuing year: President, S. C. Parker, Berwick; Vice-President, G. C. Lawrence, Port Hastings, Cape Breton; Secretary, Paul C. Black, Falmouth; Directors—J. Rufus Starr, Port Williams; W. Canning, Yarmouth; F. M. Chipman, Nictaux West; Col. Wm. Blair, Nappan; F. R. Trotter, Antigonish; C. R. B. Bryan, Pictou Co. Auditors—G. B. McGill, Middleton; Wm. McKeown, Dartmouth.

The next meeting of the Association will be held in one of the Eastern Counties some time in July.

Criticism Invited.

To the Editor FARMER'S ADVOCATE:

SIR,—I have a field of light sandy loam that I wish to improve, and I have not got the manure to spare, as it is needed elsewhere. My proposed plan is to sow it with about half bushel buckwheat and one bushel winter rye, 15 lbs. red clover seed, and 200 lbs. gypsum per acre, probably about the last of May or first of June. When the buckwheat is in blossom cut all down for a mulch and the next spring cut the second crop of rye for a mulch, and if the clover has caught fairly well, top dress again with plaster or lime. This soil is excellent for potatoes, but has not enough of humus in it, and for potatoes (which are my specialty) I prefer a clover sod. Would like to hear from some Ontario farm-

ers in regard to this method of green manuring. Will the winter rye grow up again after cutting, and would you advise a heavier or a lighter seeding? Would like criticism on my plan. I am a firm believer in mulching, whether done by barnyard manure or by green crops applied to the surface. You will see that only one plowing will be required (provided everything works right). The question is, How will it be likely to succeed? Will be pleased to hear from some practical farmer through the ADVOCATE.

Rouville Co., Que.

[NOTE.—We trust some of our readers whose experience or observation covers the points raised by our Quebec friend will deal with the subject as requested at an early date.—EDITOR.]

granary and the silo is floored above the same as the granary and is used to store machinery and other utensils. The 24-foot mow at the east end is trussed beneath the floor to avoid having posts in the drive-house beneath. The large front doors of the barn are made to open inwards to prevent slamming in windy weather. They are therefore cut one foot short at the bottom, and a board one foot wide is fastened to the bottom with strap hinges. This board is hooked up with common hooks and staples when the door is to be opened, thus allowing it to swing free of the floor. The roof is covered with Pedlar metal roofing. The barn is sided up with hemlock siding dressed and painted with red oxide of iron. The structure presents a fine appearance and does credit to the framer, Mr. Findlay Fraser, of Fern Hill, and the mason, Mr. Clyde, of St. Mary's.

Manure in the Yard.

To the Editor FARMER'S ADVOCATE:

SIR,—In your issue of Jan. 15th a great deal was stated about making and handling manure, and the majority prefer to take it directly to the fields when cleaning the stables, spreading it evenly, which I am doing at the present. However, I noticed exceptions are made when on rolling land or deep snow; and, again, that manure should not be put in large piles and allowed to heat and ferment. Might I ask one question which I can not fully decide: Should such occur as the snow getting too deep, or the land being rolling, how could I pile my manure to prevent it from heating? Please answer through the FARMER'S ADVOCATE.

B. G. HORST.

Waterloo Co., Ont.

[Select a fairly level space of ground in yard, putting the manure in a broad, even pile, so that the stock can tramp over it daily. Mix cattle, swine and horse manure together. Occasional snow or rain will probably supply sufficient moisture, but if there is a preponderance of horse manure, and it shows a tendency to heat and "fire-fang," water might be poured on the pile.—EDITOR.]

DAIRY.

Western Ontario Dairymen's Association.

(Continued from page 59.)

Practical Cheesemaking was discussed in a paper by Geo. H. Barr, Sebringville. A suitable building is necessary. The curing room must be right. An ideal combined cheese and butter factory was described. From this factory the milk cans do not leave at any time without a quantity of cold water to render washing easy when home is reached. We will publish this paper in full before the cheesemaking season opens.

Discussion led by Mr. Bell referred to the value of observing all the little things in the making of cheese. The most important point is correct settling, the curd being well cooked. A member claimed to have had good results by using a furnace to heat the curing room, the excellence of which was testified to by Mr. R. Robertson, who bought the cheese. A jacket was used around the heater. The claim was made that the heating was more cheaply done than with stoves, and the curing better done.

Curing Rooms and Curing Cheese, by J. H. Monrad, Ill. He said the patrons must feel an interest and responsibility in upholding the reputation of Canadian cheese. He expressed a hope that bad, dirty factories would be published with names of factorymen. In Switzerland a sample of each patron's milk is put in a little bottle and placed in warm water, then the patron supplying bad milk is called in to smell his sample after 8 or more hours. It will do more good than 10 hours' talk. It is a mistake to send out cheese only two weeks old. Bacterial life must be studied to be able to meet the necessary requirements. We must use moisture meters in curing rooms, also the thermometer, and adhere to the temperature and moisture that has been found most suitable.

Food Cost of Milk, Cheese, and Butter was discussed by Prof. H. H. Dean, of the Guelph Dairy School. Few men can be found who know what their dairy produce costs them. At the Guelph Station, where the grain was bought on the market and pasture paid for at the rate of \$5 per acre, it cost from \$24.36 to \$30.89 per cow, an average per cow of \$31 to feed the dairy herd for a year. Milk was produced at 4.9 cents per gallon from the best cow and 10 cents per gallon from the worst. Cheese cost from the best cow 3.9 cents and from the worst 8.1 cents per pound. Butter from the best

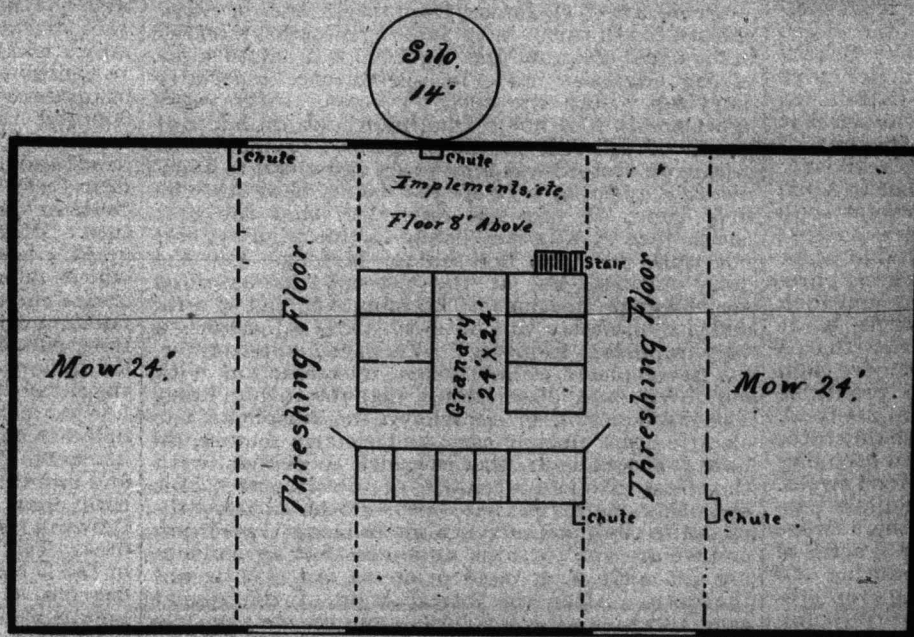


FIG. 1.—UPPER FLOOR PLAN.

A Well-Arranged Stock Barn in Middlesex County, Ontario.

The stock barn plans appearing on this page are those of a structure erected last summer on the farm of Mr. Archie C. Stewart, located two miles east of Ailsa Craig, in the County of Middlesex, Ont. It is 100 feet long by 54 feet wide, outside measurement. The basement stone walls are 8 feet high and 2 feet thick. It is well lighted and ventilated by windows, 2 ft. x 4 ft., marked w in Fig. II., and glass fanlights over each of the stable doors. There are also six tiles leading through each of the front and back walls for ventilation, as well as two shafts leading from the stables to the cupolas on the roof. The floor is of flagstone quarried at St. Mary's. The plan requires little explanation beyond what Fig.

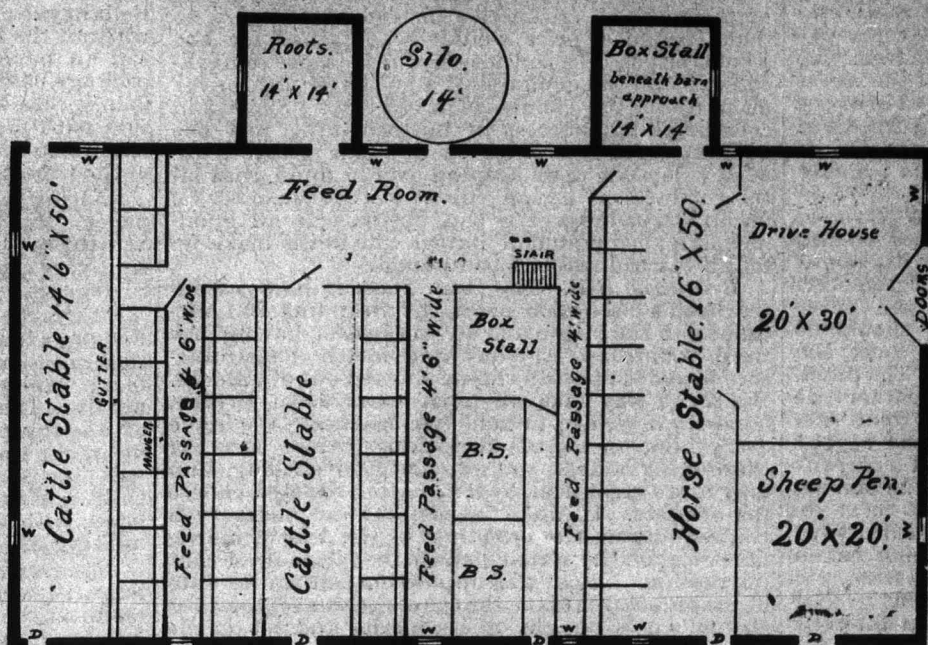


FIG. 2.—BASEMENT PLAN.

II. contains. It will be seen that the feed room is roomy and very conveniently situated, opening into each of the feeding alleys and the silo and root-house. The root-house and box stall on the north side are built beneath the approaches to the barn floors. The silo is of peculiar construction, being banded around the outside of the studs with two ply of half-inch soft elm, five inches wide, placed two feet apart sixteen feet up from the bottom, and three feet apart from sixteen feet up to the top. Outside of these bands is boarded with inch hemlock dressed and painted the same as the barn. The silo is lined with double inch hemlock with tarred paper between.

The upper barn plan (Fig. I.) is well laid out. The granary, being in the center of the barn, is convenient for all the purposes intended. The space between the

studied to be able to meet the necessary requirements. We must use moisture meters in curing rooms, also the thermometer, and adhere to the temperature and moisture that has been found most suitable.

Food Cost of Milk, Cheese, and Butter was discussed by Prof. H. H. Dean, of the Guelph Dairy School. Few men can be found who know what their dairy produce costs them. At the Guelph Station, where the grain was bought on the market and pasture paid for at the rate of \$5 per acre, it cost from \$24.36 to \$30.89 per cow, an average per cow of \$31 to feed the dairy herd for a year. Milk was produced at 4.9 cents per gallon from the best cow and 10 cents per gallon from the worst. Cheese cost from the best cow 3.9 cents and from the worst 8.1 cents per pound. Butter from the best