acre. I had last year about 30 bushels to the acre. When it is ground into meal it makes the best feed for hogs that there is, or mixed amongst oats and ground up it makes a good meal for horses.

Spring Wheat.—The principal kind of spring wheat grown in this part is the Wild Goose variety. We can get more per bushel for it than we can for fall wheat at the present time. It is exported to Spain and Italy to be made into what is called macaroni, which is a food greatly used amongst the Spanish and other European people. I have grown a spring wheat called the Preston for about three years. It was sent to me from the Ottawa Experimental Farm, but I never could get any more than about 20 bushels to the acre with it, so I sold it to the mills this winter for the same price as fall wheat. The Preston is a good wheat; in fact, I would venture to say is next the Wild Goose for general crop in Ontario. The Wild Goose will yield in this part all the way from 20 to 40 bushels per acre. I had about 25 bushels per acre last year. It requires good strong land. Would not advise sowing it, on any consideration, on light sandy land; would sooner sow the Preston on sandy soil.

Oats.—We have tried a great many different varieties of oats in this part. The Banner, Newmarket and Joanette are the leading varieties. The Siberian is of no use here; it is too weak in the straw and too light in the grain, and yields from five to ten bushels less per acre than the Banner. There is an oat called the Bavarian that is going to be a leading oat for general crop in this part. About four years ago I sent to Philadelphia for a peck of oats called the Danish Island. I sowed them and threshed from the peck that I sowed about a bag and a half of the lightest weighing oats I ever grew. It is needless to say that I did not sow them any more.

R. T. WOOD.

York Co., Ont.

[EDITORIAL NOTE.—We would be glad to receive concise reports of the above nature from readers in other districts, stating: (1st) what varieties of grains have done best with them, mentioning their special good points; (2) mentioning any varieties that have proved failures, and in what particular; and (3) what methods of spring cultivation and seeding have been found most satisfactory, specifying the sort of soil in question. We would be obliged if our readers would send in their replies promptly.]

Mr. Lemuel Kelly's Stock Barns.

Perhaps the plans and description of this barn would be a help to some who intend repairing or remodelling in the near future. The barn is 55 feet long and 45 feet wide, and an open shed on south 12 feet wide, the entire length of barn. The drive-house at south-west corner of barn is 36 by 36 feet. The barn is 55 by 45 feet, is on a stone wall 20 inches thick, which is 2 feet in the ground and 8 feet out. A tile drain running around the wall keeps it dry both inside and out. The floors, when completed, will be cement concrete throughout the whole building. The cement used is Thorold, which is mixed 2 parts to 7 parts of good gravel. Where the cows stand the cement was mixed 1 to 1, making a very strong floor, which is kept clean, saving all liquid manure, which is the most valuable.

The basement accommodates 25 head when room is needed, but generally 20 head is as many as there are on the farm. The cow stalls are 7 feet wide and 5 feet from manger to gutter, which is 16 inches wide and 6 inches deep. The floor of stalls slopes 2½ inches to gutter, which keeps bedding from getting wet. The passage behind cows is four feet wide; mangers 2 feet wide and 14 inches deep. The stall posts are set 2½ feet in the ground and embedded in concrete. The cows are tied with chains fastened to iron bars running perpendicular on side of stalls. The horse stalls are 6 feet wide and arranged so as to accommodate two cows when needed. The stables are well lighted, having ten large windows. Ventilation is fixed at chutes where feed is thrown down—marked in Fig. II. The partitions are not boarded high, allowing the light to reach all parts of the stables. The box stall and horse stable are rodded up to the top so as to prevent horses from reaching or climbing over.

The root-house, which holds 2,000 bushels, is stoned off so as to prevent the dampness and steam from the horses. When roots are all out this makes two very good box stalls for calves or cows when needed. The stave silo built last summer has just been opened. The ensilage has kept well and is of more value than can be told for winter feed. It certainly is what every one engaged in dairying or stock-raising should have. The silo is 12 feet in diameter and 24 feet deep, which holds nearly 60 tons. It occupies a corner where there used to be two cow stalls and about two tons of hay or straw above. The shed shown in Fig. I. is a great benefit, keeping storms from beating on doors and windows; now they are all dry and work all right, and it is always dry outside the stable—no snowbanks to shovel. The drive-house is 36 by 36 feet, which is used for the rigs and harness and also for a summer horse stable, which is convenient to barn and also house, which is about 45 yards away.

The barn plan show in Fig. 2 is roomy and convenient for filling and threshing. The granary is large and light and in a convenient place. The mows are large and in good shape. Such is a very fair description of a barn on Mr. Lemuel Kelly's 100-acre farm, which is in Burford township, in Brant County, Ont.

[EDITOR'S NOTE.—It is unfortunate that the space at hand was such that it seemed necessary to confine the passages behind cows to four feet, as such a width will not admit of using a horse to clean out the stables. It also seems to us unwise to use indoor space for a silo.]

Nova Scotia Farmers' Association.

The fifth annual meeting of the Nova Scotia Farmers' Association was held in New Glasgow, Jan. 24, 25,26. Among those present were: Dr. Wm. Saunders and J. H. Grisdale, of the Central Experimental Farm; Prof. F. C. Sears, Wolfville; R. Robertson, Supt. of the Experimental Farm, Nappan; B. W. Chipman, Secretary of Agriculture for Nova Scotia; Prof. H. M. Smith, Truro; F. L. Fuller, Supt. of the Provincial Government Farm, Truro, and J. E. Hopkins, Supt. Nappan Dairy Station. There were also 49 delegates from various agricultural societies in the Province.

President Blair, in his opening address, gave a review of the work of the Association during the past year, and called the attention of the Association to several subjects which he thought the Association should take action upon. These were the Manitoba Tile Drainage Bill, the establishment of a Bureau of Information, and the encouragement of sheep-raising by legislation regarding dogs.

The Manitoba Tile Drainage Bill had been introduced into the House of Assembly in 1889, but found no sympathy in that body. The Act was

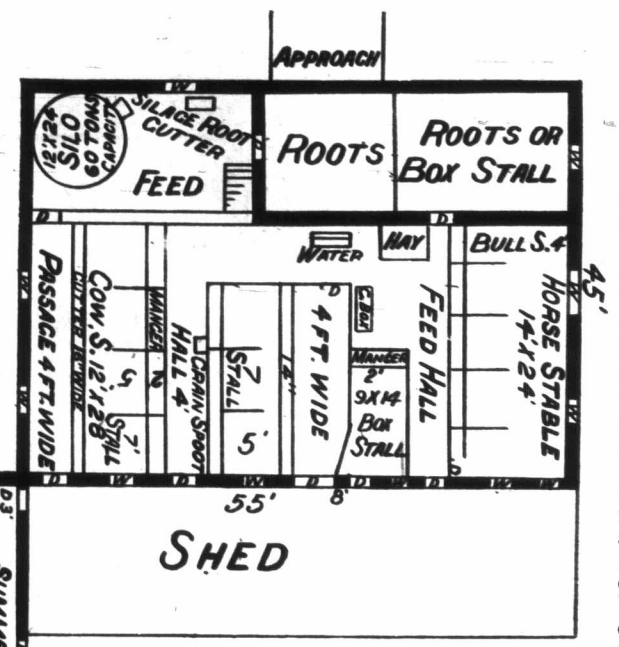

FIG. I.—BASEMENT PLAN OF LEMUEL KELLY'S BARN.

one to enable municipalities to borrow money at a low rate of interest and loan it to farmers, upon proper security, for drainage purposes only. The municipality was to collect each year, along with the county rates, the interest and such an amount of principal as would redeem the loan in twenty years.

The Bureau of Information was to be an office where descriptions and prices of farms which were for sale in different parts of the Province could be obtained. It could keep in touch with the office of the High Commissioner in London, and furnish reliable information by means of pamphlets.

The sheep industry was of great importance, but it was being seriously menaced by the worthless curs which were now allowed to roam the country. So great was the loss from this cause that many farmers were obliged to give up sheep-raising altogether. He thought the Association should take the matter up and press for legislation on the subject.

The committee to whom the address was referred afterwards reported recommending its adoption. The discussion on the report resulted in the clause relating to draining being referred to a committee to report at the next annual meeting. A committee was also appointed to draft a resolution recommending legislation regarding dogs. The clause relating to the Bureau of Information passed with the recommendation that it be connected with the Provincial Department of Agriculture.

W. W. Hubbard gave an address upon the necessity of better agricultural education. He showed the present indifference of farmers upon the subject and the benefit of Institute meetings in awakening their interest.

W. McG. Johnson, of Upper Stewiacke, read a paper on "The Sheep Industry on the Farm." He outlined the proper treatment and handling of sheep. He thought it was one of the most profitable branches of agriculture that could be carried on in Nova Scotia. The returns were quick and they gave three crops in the year—wool, lambs, and mutton.

Mr. Parcey referred to the stress which was paid at the last meeting to pork-raising and dairying. He thought sheep-raising was much more important, and that the high lands, which were now being abandoned, should be stocked with sheep. The returns of the first year would repay the original outlay in animals.

Mr. Robertson spoke of an experiment which he is conducting of bringing up a piece of exhausted land by means of sheep. He had placed twenty-five sheep on ten acres of land, and had supplemented the pasture with grain to the value of their wool. This year, by supplementing the pasture in the same way, the land had been able to carry thirty-five sheep. He thought in a short time the land would be rendered productive without any expense.

In his address upon "Live Stock Upon the Farm," Mr. Robertson said that he could not understand farming being successful without live stock. In Nova Scotia there was room for a great increase in all kinds of live stock, but he thought that of all live-stock industries, none was of such great importance as dairying. It was not only profitable in itself, but there was no means by which fertility could be so well built up. He thought dairying could be more profitably conducted in the Maritime Provinces than in Ontario, as feed could be more abundantly and cheaply raised. A thousand bushels of roots could be counted on here for eight hundred in Ontario. He advocated winter dairying, as prices of dairy products then ruled higher, and a cow that calved in the fall gave more milk in a year than one that calved in the spring. He emphasized the fact that to be successful in dairying, cows must be selected from dairy stock.

A paper, "How to Keep our Girls at Home," by a mother, was read by Mrs. Baillie, as the lady who wrote it was ill. She said that girls did not leave the farms because they did not love their homes, as was shown by the number who returned and spent their savings upon the farm, but because farming, as now carried on, did not yield returns enough to support the family comfortably. They felt that their labor did not pay for itself and that they were a burden to their parents. The remedies suggested were the public schools; agricultural societies, which would enable farmers to improve their stock; this association, which enabled farmers from different parts of the Province to meet and discuss questions relating to their calling; and the establishment of dairy schools, where girls could be taught improved methods. The moral of the paper was that if the girls are to be retained upon the farm they should be taken into partnership.

Prof. Sears, of the Nova Scotia School of Horticulture, gave an address on "Spring Work in the Orchard." He said: The time for pruning varies in different localities, and each different variety of tree requires different treatment, but some general rules can be laid down. The early spring is about the best time for pruning, as then the wounds are not long exposed. Experience is necessary to do the work well. The top generally requires to be thinned; take out all dead wood and all branches that rub; cut as close to the main branches as possible; large wounds should be covered with good lead paint. All prunings should be burned, as myriads of insect eggs are thereby destroyed. Trees which do not bear well, even when well cared for, can often be brought into bearing by a severe summer pruning. The best time for top grafting was about a week before growth began in the spring. Limbs to be grafted should not be over two inches in diameter. Saw them off square and split through the middle for two inches. Scions should be cut wedged shaped and set one on each side of the stock with the inner barks corresponding. The whole wound should then be covered with grafting wax. Scions should be selected from trees which are known to be of good varieties and good bearers. They can be cut at almost any time, but autumn was preferable. For early spring spraying he would suggest a solution of rock potash, one pound, to from two to eight gallons of water. There was nothing which would give trees such a clean, thrifty appearance. A solution of blue vitriol could also be applied early in the spring.

On Thursday Mr. J. H. Grisdale gave an address on the development of the dairy herd, which he illustrated with life-size portraits of noted milkers. He said: "There are three ways of developing a herd: by selection, breeding, and feeding. Select by performance, weighing and testing the milk; by form, but in order to do this we must have some idea of what form is best. While a good heart and lungs are important, still more so is the abdomen, which must be large, giving great capacity. The mouth should be large and the jaws powerful, giving great power of mastication. The conversion of food into blood is only half the work: large organs for the elaboration of the blood into milk are necessary, and to give room for it the hind legs should be wide apart and thin. In order to stand the strain of converting these rough foods into milk, a strong constitution is necessary, and this is shown by a good development through the shoulder, giving room to the heart and lungs. As the elaboration of milk is largely a nervous function, therefore we want a large forehead, giving plenty of brain room, and a large, quick, prominent eye, showing a quick disposition. The next step in development is by breeding. Select a well-bred sire of a good milking strain, and stick to the breed you start with. Get a masculine animal, yet one possessing the characteristic form of the dairy cow. Strive to increase the size of your animals, as a large cow is always preferable to a small