

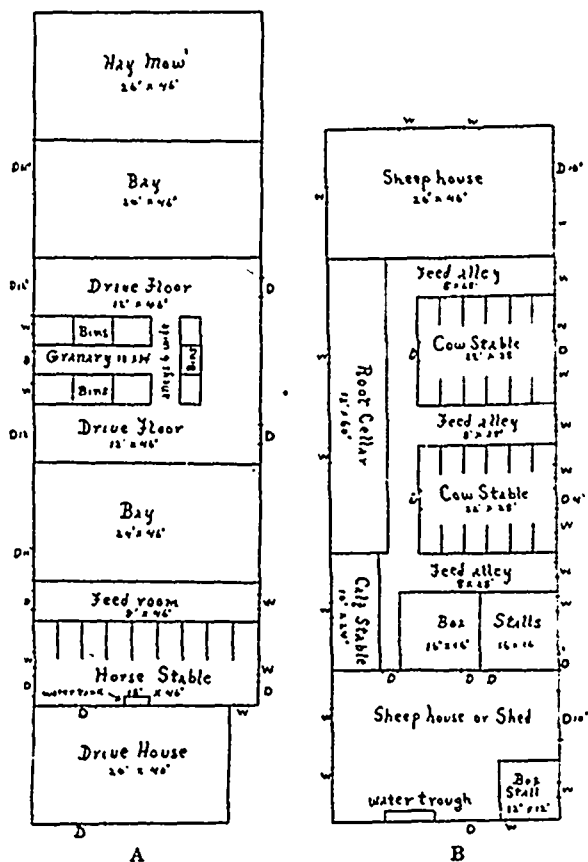
testing milk and its products can be bought for a dollar; what better educator could a man have than such a machine? If any farmer will act upon the knowledge which a Babcock tester will reveal to him, inside of three years he will increase the profits of his dairying an hundred fold.

It is no particular benefit for any one to take a single sample of cows' milk to the cheese factory or creamery to be tested, because that alone will be no criterion as to what a cow will do in the course of a year. To do it intelligently a sample of milk should be taken at each milking for three or four days or a week, and kept in a closed bottle into which a small quantity of bichromate of potash or some other milk preservative has been put, and then a sample of this composite milk should be tested so as to get at the average, because the percentage of fat in a cow's milk is continually varying, and no two milkings will test exactly alike. While the samples are being taken the cow's milk should be weighed at every milking so as to compute how much butter-fat a cow will produce in a given length of time, and this should be done three times a year. If the milk is not weighed, the test will give you nothing definite, for one cow may test 3 per cent. and another 5 per cent., and you will naturally think that the one cow which tests 5 per cent. would be the best cow. But supposing the one which tests 5 per cent. gives 100 pounds of milk per week and the 3 per cent. one gives 200 pounds in a week, the one which gives the richer milk would give five pounds of butter fat while the one giving the poor milk would give six pounds of fat or one pound of fat and 100 pounds of skim-milk more than the other, and that one pound of butter fat and 100 pounds of skim-milk might very easily represent the whole profit which you were getting from these two cows over the cost of their keep. Now, to sum up a good dairy cow you must have one that will consume large quantities of food and return the greater part of it to you in milk and butter fat, and one that will keep at it the greater part of the year.

#### CHEAP FEED.

Cheap food is what we want as well as good cows, and a cent per pound saved at this end by cheapening the feed is just as good as a cent per pound at the other end for our butter and cheese, yet how few look at it that way. We are looking at the other end for our profits, yet there is just as great a chance for profit or loss at the feeding end as there is at the selling end. Did you ever hear one farmer ask another how much it cost him to produce his hundred pounds of butter or cheese? I'll venture to say you never did, yet that part of it is of greater importance to the farmers than the markets for our cow products, for it involves better methods of farming, increasing the fertility of the soil, making one acre produce as much as two have done heretofore and keeping cows that pay a good profit. Take, for instance, two farmers living side by side, each working 100 acres of land. One man reads but little, takes no agricultural paper, does not believe in growing corn, and cannot afford to seed down very much, but depends chiefly on grain-growing with a few acres of turnips; he puts most of his straw in a stack in the barnyard, has but little use for a straw cutter, turns his cows out in the winter time in all kinds of weather to drink ice cold water and feed at the strawstack during the day and get exercise, and takes them in at night chilled to the bone; although he may have a comfortable stable, and a fairly liberal supper for them, yet there is but little milk in their udders, simply because it has taken all their energy in trying to keep warm during the day, and what little hutter he gets from them in the winter time is of poor quality and so strong of turnips that nobody wants it. The other man is a model farmer. He takes the best papers he can get on farming and is a keen observer of what others are doing in his line. He grows 6 or 8 acres of corn, seeds down 15 or 20 acres every year, has a silo for his corn, grows mangolds for his cows instead of turnips, puts all his straw under cover, uses his cutting-box during the winter, buys bran and even oil cake for his cows, keeps

them in clean and comfortable stables seven days in the week, gives them appetizing food and keeps double the number of cows on his 100 acres besides as much other stock, and makes butter that every lover of good butter wants, and it costs him less per pound to make it than it does his neighbor because he grows and feeds food that will produce milk, and gives his cows the comfort necessary for them to use their food to the best advantage. The solution of the question of cheap milk lies in the silo, for good corn silage is undoubtedly the best and cheapest milk-producing food which has yet been grown, but it has to be made from well matured corn and judiciously fed in connection with other feeds in order to obtain the best results. A great many cling to the idea that dry corn fodder is as good for milk production as siloed corn, but careful experiments have been made to test the relative value of the two foods, and the results have always been largely in favor of the silage when it was made



Plans of barn and stables.

A.—Plan showing barn floors, granary, horse stable and drive house.  
B.—Plan showing stables under barn with sheep house and root cellar.  
NOTE.—In making drawing a mistake was made in the position of drive house which should extend 24 feet along the end of barn instead of 40 feet as shown in diagram.—EDITOR.

from well matured corn. Where winter dairying is paying the best in this province silos are coming more and more into favor every year, and they are now built so cheaply that there is but little excuse for any farmer being without one. Mangolds should take the place of turnips for milking cows, as they impart an unpleasant flavor to the milk or butter, but turnip butter is so objectionable to the British consumer that buyers are very careful now about buying butter with a flavor of turnips. In order to make a cow do her best at the pail she has got to have a certain proportion of different milk producing foods for winter dairying. There are patrons sending milk to creameries whose milk is worth from 10 to 20 cents per 100 lbs. more than the milk of some other patrons, through it may not make any more butter. It is in the difference in the quality of the butter, and this difference in the quality is made by the difference in the feed. If cows are fed on turnips