

what is equally foolish, men who need information in order to make more out of their business will not take a good agricultural journal, and even some who have such a paper coming to their house, do not take the trouble to go through it to see if it contains anything helpful to them. How expensive it is to be foolishly and unnecessarily ignorant.

If men will only be honest with themselves they must admit that intelligent people recognize a good thing, and this is how we account for the popularity of the silo. Just here it might be instanced that a very few years ago comparatively few patrons of the Avonbank cheese and butter factory in Perth County had silos, while to-day we feel safe in stating that upwards of fifty per cent. of the patrons feed ensilage to their cows, and it will be only the matter of a very short time when every farmer will use the silo to preserve fodder for winter, and in some cases for summer use. Our readers will be interested in learning which of the various sorts erected in that district is becoming most popular; we therefore invite an informed patron of that district to write us what style was most numerous built in 1897. We are aware that in many sections the round stave silo has many friends, while the number built of cement is increasing year by year and giving decided satisfaction where properly constructed.

Let us have an experience page on this important subject, that the eyes of the blind may be opened, and those seeking light may receive it. There are among our readers men who have silos of the following sorts: Of wood—square, octagonal and round, differently constructed; of cement—square, octagonal, oblong, twin, etc.; of brick—square, oblong, etc.; and of wood cemented inside. Of these and any others that are giving entire satisfaction, we would like to learn and publish concise testimonies as to their cost, ability to keep silage in good condition, and probable durability.

Standard of Food Value.

T. C. Wallace (Wallace & Frazer), St. John, N. B., and Toronto, Ont., writes: "A series of experiments recently carried on in Europe demonstrated that the quality and quantity of fodders could be improved by applications of correctly composed fertilizers. Apart from the increase in yield, which was doubled, the feeding value was increased over three and a half times in flesh-forming albumen, doubled in fat, besides twice as much bone-making element was obtained in the crop. There, then, is a standard for us worthy of our best efforts. This appeals as well to the breeder as the stock-grower or dairyman. It interests the grain and hay grower, as it promises him increased crops with increased values, which will make their own market, even as the Manitoba wheat does. The seed-grower will note it, as it shows him that with such knowledge the farmer will demand better seed from him. It may upset some of our standards of value of plants, but with such improvements as that demonstrated, the sooner they are rectified the better. The dairyman knows well that such superior feed gives him milk, butter and cheese excellent in taste. The breeder of horses recognizes that with such improved material for feeding, his horses will develop better form, show more endurance, and are much less afflicted with bone troubles. No one will appreciate the importance of this more than the hog-raiser, who has more trouble with bone disease and muscle weakness than any stock-raiser in other lines. The stock-raiser has thus a great field opened up to him in his endeavors to produce and bring to maturity the large steer he aims at, and quickly, more surely and cheaply, prepare it for market. When we look over the land at the neglected hay and pasture fields, the values of which might be so readily increased, we must admit that the lesson taught by the tireless experimenters is of inestimable value. It is idle to talk of improving the stock by feeding it on hay and grasses containing only half the nutrition necessary to the production of beef or milk. Only plants well supplied with pure phosphate can secrete the store of flesh and fat forming constituent to the highest degree. How many Canadian farmers will give serious thought to this?"

DAIRY.

Proportion of Butter to Butter-fat.

The above question being a live one at the present time and engaging a large share of attention, we copy from a British Columbia paper, *The Progress*, the following report of the Eden Bank Creamery, Chilliwack, B. C.:

MONTHLY REPORT—MARCH, 1898.

Quantity of milk received.....	59,980 lbs.
cream " " " " " " " " " "	356 lbs.
butter-fat obtained.....	2,221 lbs.
butter made.....	2,436 lbs.
butter in stock.....	330 lbs.

Average net price realized after deducting commission, freight, and a making charge of three cents per pound, 26 cents. J. H. SUART, Secretary.

Sub-Earth Duct Ventilation System for Cheese-Curing Rooms.

To the Editor FARMER'S ADVOCATE:

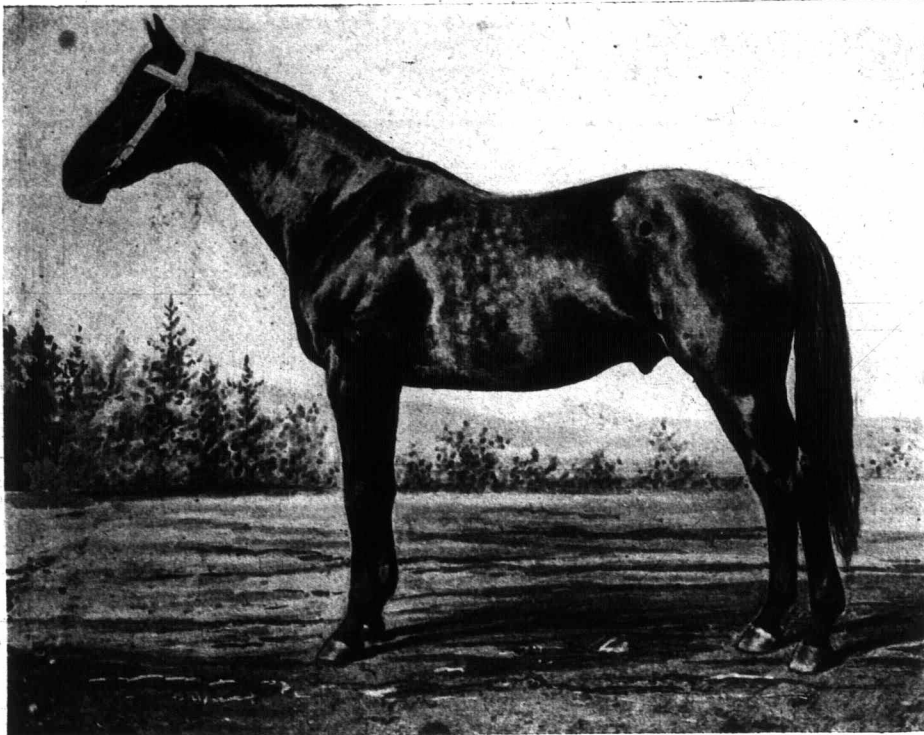
SIR,—In one of my addresses at the butter and cheese convention, held in London last winter, I mentioned incidentally the sub-earth duct system of introducing air into cheese-curing rooms. Since that time I have had a large number of enquiries relative to the manner of constructing them, and possible benefit to be derived from their use.

I would like to say that we have just finished putting one into one of the curing rooms at the school. It is constructed on lines similar to that in use by Mr. E. D. Tillson, of Tilsonburg, in his dairy building, stables, and new piggery, and described in various numbers of the FARMER'S ADVOCATE, with some modifications. The duct is made with one 8-inch drain tile. (The curing room is only 7x12x10 feet.) The inlet is 150 feet from the building, but is only 12 feet high. The duct is 6 feet below the surface. We were unable to go any deeper with it, because the sewer into which the water is drained would not permit it. Provision is made for carrying off the water by putting a 2-inch tile beneath the duct. This matter of drainage will be an obstacle in many places.

I do not think it would be wise to construct one without such provision, and the location of many factories makes it impossible. I know that in some factories where they were put in without it, they have been abandoned on account of the foul smell coming from water lying in the duct.

We have three curing rooms, all of the same size and construction, and as this duct leads into one only, it will be easy to make comparisons and to ascertain exactly what benefit is to be derived from the system.

J. A. RUDDICK, Supt. Eastern Dairy School. Kingston, Ont.



FIRST PRIZE THOROUGHBRED STALLION (QUALIFIED TO SIRE SADDLE HORSES AND HUNTERS), OTHMAR; OWNED BY WILLIAM HENDRIE, HAMILTON, ONT.

Record of Annandale Herd.

In the FARMER'S ADVOCATE of Feb. 15th was given the records of a portion of Mr. E. D. Tillson's noted dairy cows, along with a brief review of the management of his Annandale herd. The cows are chiefly graded Holsteins on Shorthorn grade foundation. Since the full year's records have been made up, Mr. Tillson has written that the average time the cows were milked last season was eleven months and twenty-two days. The young heifers are milked their first season 13 to 16 months to train them for long period milking. They are then given three or four months rest before coming in again. The old cows get from one to two months rest before coming in again. The herd is kept up to about sixty head by introducing heifers from the best cows each year and fattening off the same number of the poorest cows. One of the best obtainable butter-bred Holstein bulls is kept at the head of the herd, the present one having been purchased from Mr. G. W. Clemons, St. George, Ont. The following table shows the season's record of the 55 cows:

10 best cows averaged	13,722 lbs. milk, making 560 lbs. butter.
10 2nd " " "	11,889 " " " 482 " "
10 3rd " " "	10,869 " " " 441 " "
10 4th " " "	9,453 " " " 386 " "
10 5th " " "	7,587 " " " 310 " "
5 poorest " " "	5,742 " " " 233 " "

The herd of 55 cows averaged 10,242 pounds milk, 418 pounds butter.

Test 3½ butter-fat.

Surely there is a lesson contained in the foregoing table. Dairymen whose cows are producing very much less than Mr. Tillson's will readily see that such enviable returns are not a matter of luck, but by following a fixed and intelligent purpose, with care in every detail.

Butter Factory Accounts.

Prof. Dean, of the Ontario Agricultural College Dairy School, in our "Questions and Answers" department of this issue, deals with an enquiry from a reader "Patron" which, we presume, represents an exceptional case—we certainly hope so—due largely to inexperience. Several other letters, however, have during the past month or so reached us from patrons of winter creameries as to the returns they are fairly entitled to receive from milk showing by the Babcock test a given percentage of butter-fat. We have had a sharp and helpful discussion on this point, and one conclusion drawn is that under fair conditions an increase of some sixteen per cent. over the actual fat content of milk should be expected in good merchantable butter. The steps necessary to attain the best results were very clearly set forth in our May 2nd issue. If "Patron's" letter indicated anything like a general condition of things, which, however, we cannot credit, then it would strongly emphasize the remark of Mr. Sleightholm, Superintendent of the Western Dairy School and Creamery at Strathroy, Ont., when he told the readers of the FARMER'S ADVOCATE lately that "a great many men are making butter who are but imperfectly equipped for their work. A very limited number know how to test milk properly, and very many are wholly in the dark as to the actual fat content of their by-products" (skim milk and buttermilk). A course at one of our dairy schools should rectify these defects. One could hardly credit the statement that any one undertaking, in this enlightened day, to run a butter factory would state that he was unable to obtain as much butter from milk as it contained of butter-fat. That there is need of radical reform at such an establishment, both in working methods and monthly statements furnished patrons, is evident, when upon the face of the information as sent us by

the patron, he fell short in the net cash return to which, under up-to-date methods, he was fairly entitled nearly 14 per cent., assuming the selling price to have been 19 cents per pound and not 18 cents.

The creamery or factory system is one the success of which depends upon mutual effort on the part of patrons and officers; the former furnishing milk in first-class condition, otherwise the most skillful maker will be seriously handicapped; and the latter by accurate testing, thorough separation, churning, etc., getting all the first-class butter the milk will yield, and by giving the patrons complete and accurate information, promote confidence in the factory management. Prof. Dean suggests a model form of monthly statement, the idea of which we heartily commend (as patrons cannot be kept too fully posted) to the consideration of dairymen, whose opinion upon it we would like to receive, as well as samples of similar forms which the users may consider better in any way. Turn on the light, gentlemen.

POULTRY.

How Shall We Raise the Young Turkeys?

There are a hundred kinds of poultry coops. Possibly each kind is considered best. On the farm it is the kind which can be most easily constructed and which will form a covering for the brood that finds greatest favor, for at this season we are usually busier than ever. There are ideal coops, as well as many apologies, but for a turkey hen and twenty or more young ones the coop should be sufficiently large to allow floor space for them at six weeks old, providing they live for six weeks. It should be high enough that the old turkey may stand upright without disarranging her bangs. The door should extend nearly as high as the roof, for it is tantalizing when trying to drive her in to see her so high-minded that she will go several times around rather than humble herself sufficiently to enter a low door. It should be well ventilated, yet not given to drafts. It should be sufficiently light to make moving every day convenient. It should have plenty of openings for the many outgoings and incomings of the young inhabitants; and it should be rat proof, for rats consider young turkeys a choice delicacy. A small yard, say eight by ten feet and a foot high, should be attached, as further confinement for young turks is necessary until they get their bearings, otherwise they might stray far enough to get gobbled up by a hawk.

Having got the birds and the cage, we might tack up these mottoes—not so much for the attention of the birds (they follow them by instinct, if permitted), but for our own guidance. They are: "Prevention is better than cure," "Variety is the spice of life," and "There is safety in numbers." The first of these applies to the ills and enemies in turkeydom. Lice and dampness being the two greatest enemies, we must take pains to prevent them from injuring our beauties, and little bronze turkeys at one day old, when covered with their coat of cream and brown velvet down, are only surpassed in beauty by big bronze turkeys when fully