

dation up to about one-half the height was 8 x 10 x 16 inches; balance to the top, 8 x 8 x 16 inches. The blocks were made on the ground by the block machine, and were laid up by city masons the same as any cement-block structure, with an iron rod laid in a groove formed in the block to secure same, every third course, the rod making a complete circle or hoop; a three-eighths-inch rod will answer the purpose well. Regarding cost of hollow concrete-block silo, as compared with solid concrete, I am of the opinion that the hollow-block silo will cost a little more. I think it will be just as durable, amply strong, and rather more desirable.

With regard to the way the silage keeps, as compared to that in a wood or solid-concrete silo, would say that last season's experience demonstrated that there is nothing to be desired in the way the silage keeps. We had not a particle of spoiled ensilage, except a few inches on top.

I would recommend any ordinary farmer to build a hollow-concrete-block silo in preference to any other kind I know of at the present time.

Elgin Co., Ont.

R. A. PENHALE.

THE DAIRY.

KNOWLEDGE AND SKILL IN DAIRYING.

"There are two most valuable possessions which no search-warrant can get at, which no execution can take away, and which no reverse of fortune can destroy; they are what a man puts into his brain—KNOWLEDGE; and into his hands—SKILL."

This apt quotation serves as a text for the foreword in the Eastern Dairy School Calendar. Dairying, it proceeds to remark, is becoming more and more an applied science, and before one can hope to achieve any marked degree of success, he must possess both a knowledge of its underlying principles, and the skill to apply this knowledge in every-day practice; he should have a trained mind and a trained hand.

Perhaps, everything considered, dairying constitutes our premier national industry. Our home consumption of milk and milk products is large, and, in addition, we export large quantities of cheese and butter, it being conservatively estimated, by those in a position to judge, that the combined value of these means an annual revenue of fully one hundred million dollars; and this without any depletion, but, on the contrary, an actual building up of soil fertility.

As our cheese and butter making are largely conducted on the co-operative plan, the future success of the industry depends, in no small measure, upon those who man our factories. As they are such important factors in its development, they cannot qualify themselves too well for the important position they occupy. Our factories should be, and we are pleased to say that many of them are, centers of dairy education.

The magnitude and importance of our dairy industry, its real nature as an applied science, and the great importance attaching to our cheese and butter makers, on account of the co-operative form that dairying has largely assumed in Ontario, and in Canada as a whole, these constitute the reasons and the justification for the establishment and existence of our whole system of free education and instruction in dairying, of which our dairy schools form such an important branch.

We would repeat that, under our more or less complicated co-operative system of dairying, the maker and factory manager becomes a most important factor in its successful working out; and it behooves those in charge, or about to take the management, of factories to feel their responsibility, and thoroughly qualify themselves for their important posts.

QUESTIONS FOR HOLSTEIN BREEDERS.

Editor "The Farmer's Advocate":

As I am a young Holstein breeder, and am anxious to learn, will you kindly answer the following questions:

1. Are the "milk wells" and veins as large when a cow is dry as when she is in full flow?
2. In a Holstein bull, which form would you prefer, a masculine head, highly-crested neck, heavy shoulders, square buttock, and heavy, full quarters, or one with a ewe neck, sharp withers, narrow back, cat hams, and well split up behind?

Welland Co., Ont.

YOUNG DAIRYMAN.

[Note.—The second of these questions is important, involving, as it does, complicated considerations of type and sexual differentiation. It is hard enough to decide what constitutes the ideal type of a dairy cow, but much more difficult to decide what conformation of the male corresponds to and is best calculated to beget such approved type in his female offspring. We submit these questions to the consideration of Holstein breeders from whom, as well as from any others who may be interested in the discussion, replies are invited.—Editor.]

WHEY WORTH 35 PER CENT. MORE.

Editor "The Farmer's Advocate":

At the last annual meeting of the patrons of Maple Grove Cheese Factory, it was decided to try pasteurizing the whey for this season. From my own experience so far, and that of others with whom I have conversed on the subject, I may say we consider the practice highly satisfactory. The whey is returned quite sweet, of good flavor, and I would consider its feeding value worth at least 35 per cent. more than the sour stuff we formerly received. A good feature about it is that the cans are sweeter, with no grease adhering, as heating the whey incorporates all of the fat into it; so that the cans are more easily washed, and it is reasonable to expect that they will last longer, not being so liable to corrode. I also think that pasteurizing the whey must have a beneficial effect on the character of the milk supplied, and thereby affect the character of the cheese. We pay our cheesemaker \$50, which amounts to about 50c. per ton of cheese, for pasteurizing, as all the remuneration he wanted was enough to cover the cost of the extra fuel required for producing the steam.

I consider the practice a step in the right direction toward getting rid of some of the bad flavors that cheesemakers have had to contend with. Factorymen in general will do well to fall in line, and I am satisfied that any person having any experience with pasteurization of whey would not willingly return to the old practice.

Lambton Co., Ont.

FRED PATTERSON.

NO BITTER FLAVOR SINCE WHEY IS PASTEURIZED.

Editor "The Farmer's Advocate":

At the Elma cheese factory the practice of pasteurizing the whey has been adopted, with satisfactory results. The whey, as returned, has been found to be sweeter, of better flavor, and with better feeding value, as all the fat is contained. It is impossible to say how much more per cwt. it is worth. The cans are easier to clean, as there is no grease adhering to them, and they will probably last longer. The quality of the milk has improved, and the cheesemaker states that, since adopting the practice, he has had no bitter flavor, and few other flavors. A charge of 50c. per ton for heating the whey is made. From my experience, it pays to have the whey pasteurized, and I would like to have the practice continued.

Perth Co., Ont.

THOS. E. SHEARER.

FEEDING VALUE OF WHEY DOUBLED.

Editor "The Farmer's Advocate":

During the time pasteurization has been practiced in the Elma cheese factory it has given entire satisfaction. The steam connections were installed last spring, and since then a marked improvement in the condition of the whey and milk cans is noticeable. We consider the feeding value of the whey doubled, and the cans are almost entirely free from grease, are much easier cleaned, and will undoubtedly last longer. Cheese with a bitter flavor had been a common thing in this factory for years, but have been entirely free from the trouble this past summer. The cheesemaker is paid 50 cents per ton of cheese for pasteurizing. Altogether, we think it a paying investment, and consider any factory's equipment incomplete without arrangements for pasteurizing the whey.

Perth Co., Ont.

R. S. BALLANTYNE,
Salesman.

ANOTHER WORD FOR PASTEURIZATION.

Editor "The Farmer's Advocate":

The practice of pasteurizing the whey has been in vogue for the past year at the Snell's Factory, at Newark, with the result that the patrons find the condition of the whey, as regards sweetness, flavor and feeding value, better than formerly; the cans are sweeter and easier to wash, less grease is found to adhere to them, and they will probably last longer. The night's milk is less liable to be gassy than it was before the whey was pasteurized. The patrons find that it pays them to have the whey pasteurized, and wish the practice continued.

Oxford Co., Ont.

J. E. WARING.

THINKS PASTEURIZED WHEY EQUALS SEPARATED MILK.

Editor "The Farmer's Advocate":

Our factory has been pasteurizing whey two seasons. The whey is sweet, and is worth as much as separated milk for feeding. Formerly, I would not want it at any price. The cans are sweeter, and easier to wash, and there is no grease adhering to them. The cans do not corrode, but I don't think they will last any longer. Pasteurization should improve the quality of milk and cheese. It pays to have the whey pasteurized. I wish the practice continued.

Oxford Co., Ont.

CHAS. R. MCCORMICK

WOULD PAY ANY FACTORY.

Editor "The Farmer's Advocate":

Whey has been pasteurized at the Elma factory this season. The whey has been very satisfactory so far. I consider it much better for feeding, but cannot say just the positive value per cwt. The cans are very much more easily cleaned, as no grease adheres to them at all. They also keep sweet, and do not rust so quickly. I also think the quality of the cheese has been improved by this method, as our cheesemaker won several prizes at the large fairs. I believe it would pay any factory to pasteurize whey, and I certainly wish it continued.

Perth Co., Ont.

AN ELMA FARMER.

POULTRY.

TO COMMENCE WITH EGGS OR FOWLS?

To a symposium of answers to the question, "Would you advise the beginner who wishes to make a success of the standard-bred business, to buy fowls now or eggs next spring?" that bright poultry paper, the Standard, subjoins the following, by way of explanation and comment:

An important reason for buying fowls is that the buyer has the advantage of the breeder's experience. This is valuable to the buyer now, because it enables him to commence studying his variety and to have made considerable progress in the spring, when the other beginner would be buying eggs for hatching.

Almost all poultry-breeders are honest, and are in the poultry business to make good, and if the buyer pays a reasonable price for a pen of one cockerel and four yearling hens, these birds will certainly produce high-quality chicks.

From the small pen, the buyer can hatch one hundred or more chicks next year. He can hatch them early; he can separate the eggs of each hen, if he wishes, and in this way make a good beginning in line-breeding standard-breds.

Most breeders who sell high-priced eggs for hatching, sell them from pens containing not less than eight and up to twelve hens. These females do not all properly mate with the male, so that our buyer, with the cockerel and his four hens that were specially mated for him by the breeder, has a greater chance to raise high-quality birds than the man who buys eggs for hatching next spring.

The point is raised in one answer that the breeder will not sell his best birds, but that he will sell eggs for hatching from his best birds. If he will not sell his best birds—birds that he understands the value of—why would he risk selling eggs from them?

You will find that any breeder will sell his best birds (his price might not be a modest one) when he has other birds developing that will surpass the present best birds at the next show he will attend.

Rather tell the beginner to go to a good breeder in the variety; buy all the birds he now wants from that man or woman, and continue buying new blood or eggs from this strain for the first few seasons.

To Our Club-raisers.

There are thousands of farmers who do not know what they are losing every year through not being subscribers to "The Farmer's Advocate and Home Magazine." Therefore, we want all readers of "The Farmer's Advocate" to act as club-raisers this year, and send us large lists of NEW SUBSCRIBERS.

Send us TWO NEW NAMES for one year, and we will advance your own subscription twelve months, thus making the cash payment only \$3.00 for the three yearly subscriptions; or, for each single NEW NAME, accompanied by \$1.50, we will advance the date of your address label six months. Cash commissions or premiums, as preferred, for larger lists of new names.

In clubs of FOUR RENEWALS OR OVER, we will accept \$1.25 each.

Premiums not included in club offers.

Start raising your club immediately. Get "The Farmer's Advocate and Home Magazine" into every household in your locality.