

vailing prices, particularly in summer. What we need is not a lowering of the price of cheese to correspond with that of butter, but rather an elevation in the price of butter to correspond with the food values in other lines. Quoting again from Bulletin 221, butter at 30 cents per pound produces 12,000 calories (heat units), whereas sirloin beef at 24 cents per lb. produces but 4,132 calories; eggs at 25 cents per dozen give 3,853 calories. We thus see that butter is relatively too cheap at present prices.

I know of no more important line of work at the present time than that of placing correct information before the consuming classes, of the relative values of foods purchased for the home. A great deal of money is wasted on the purchase of food material that does not sustain the human body economically. Making all due allowance for variation in tastes, and the dietetic value of flavoring material, etc., it is undoubtedly true that the high cost of living could be materially reduced without causing any deficiency in body requirements, by knowing something more than is commonly known by purchasers of food, regarding the needs of the human body and how to purchase these needs with best results. In this respect dairy products of all kinds take a high place. Instead of a lowering of prices for dairy goods, there is a need for increasing the price so that dairy farmers would be encouraged to keep things clean and sanitary in their stables and in connection with the handling of milk. To keep cows and milk clean, requires labor; labor costs money, and the rewards in the past have not been commensurate with the increasing cost of production in dairying, or, for that matter, in any other line of farm manufacture.

Instead of a lowering of prices for farm produce there is great need of an increase in order to encourage farmers. One of the good results of the present campaign of Patriotism and Production, is that it will call attention to the value of farms and farming, from a national viewpoint in such a way as has never been done before. The men at the head of affairs in Canada realize that we must begin to pay for the spending era which has characterized us up to the present. The wealth to pay back what we have borrowed must come out of our mines, forests, fisheries and soil—but chiefly out of the soil, hence farming will occupy a relatively more important place in the eyes of Canadians than ever before, but farmers need encouragement—to “hammer” down prices is a poor way to accomplish what all who know anything about Canadian finance, realize is a necessity at the present time.

O. A. C.

H. H. DEAN.

The Dairy and Cold Storage Branch of the Dominion Department of Agriculture informs us that Abraham Schreir, a butter dealer in Montreal, appeared in court on Monday last to answer a charge of selling one pound blocks of butter which were under weight, and was fined \$50.00 or two months in jail. The information was laid by Inspector Bouchard, of the Dairy and Cold Storage Commissioner's Staff. This is the first conviction for this offence under the Dairy Industry Act, 1914.

POULTRY.

A Satisfactory Henhouse.

During the summer of 1914 it became necessary to construct a henhouse on “Weldwood Farm” in order to accommodate the increase in the flock. In designing a house that would be suitable for the purpose, comfortable, healthful, and convenient, a modification of the open-front house, recommended by Prof. W. R. Graham, of the Ontario Agricultural College, was selected. The original plan of the open-front house, as constructed throughout the province, has dimensions as follows: The house is 20 by 20 feet on the ground, 4 feet 6 inches high at the back, and 3 feet high in the front. The ridge is 7 feet high, with a door in the east end and a window 5 feet 4 inches by 4 feet 2 inches in the west end. The entire front or south side is open to the atmosphere, being covered only with chicken wire. The roosts are placed at the back of the pen, which is four and one-half feet high, but the roosts themselves are placed so the birds will avoid the stratum of cold air near the floor and yet not be too close to the roof.

The henhouse at “Weldwood” differs from this plan only in two regards. However, they are additions rather than alterations. One change is in the roof. Instead of having the two sides of the roof meet, as is customary, the south side, which on account of the low front is the long side, was left as in the original plan, but the north roof was raised at the ridge a sufficient distance to allow for a sash containing 24 panes of 10 by 12-inch glass. This construction and extra lighting brightens the whole pen, making every part almost as light as the front, where there is nothing but wire. The extra lighting, in reality,

increases the area of the pen by lighting all parts, making it as light to scratch in the center of the pen as it is in front. The additional glass also admits more sunlight, making the pen warmer during the day. The extra glass space would tend to cool the house at night, but during the winter now passing it was not found necessary to provide a covering for this narrow window to retain heat.

Another change was made in the length of the building. An addition of four feet was added to the east end as a “handy room.” In this part the feed may be kept, would-be sitters broken up and hens set. The henhouse proper is still 20 by 20 feet, and a substantial wall separates it from the handy room. One dozen nests are installed in the east wall. Each nest is 15½ inches long and 8½ inches deep, inside measurements, and made in the shape of a box without a cover. A rectangular hole, near the floor, was left in the wall to accommodate each nest. When the hens are fed in the morning, the nests are pulled through into the henhouse proper, and when they are fed again at night, the nests are pushed back into the handy room. The nests themselves slide on a small cleat, and whichever way they may be pulled the end of the nest completes the wall, so there is no open space. When a hen decides to sit, she is simply pulled, nest and all, into the narrow room and given the eggs without disturbing her in any way. Under this system the fowl never roost on the nests, and they are easily kept sanitary and clean. Between the handy room and henhouse proper a convenient door, made chiefly of wire, is hung so it will swing both ways and close automatically. The roosts were arranged at the back of the pen and made in the form of a frame, which is hinged to the uprights in the wall so it will lift up and fasten to the roof. This facilitates the cleaning of the pen and adds to the area, as they may be hooked up at any time. The roosts are 14 inches apart and 12 inches from the floor. Those farthest from the wall could well afford to be higher, but it would then be inconvenient to lift the frame and fasten it to the roof.

The house happens to be so situated that when the wind is in a certain direction it swerves around other buildings and blows rather strongly into the front of the house, sometimes carrying with it too much snow. This undesirable feature was overcome by a screen of cheesecloth attached to the front while the direction of the wind and nature of the weather were unfavorable. Throughout the winter of 1914 and 1915 one hundred hens were housed in this building. All came through in excellent condition without frost bites and all appeared healthy and vigorous. During February the house was divided with a partition of chicken wire into two breeding pens. This division will exist, of course, until the breeding season is over, when the hens will be allowed the run of the building again.

Following is a list of the material utilized in building the house:

42 pieces, 2x4x12; 4 pieces, 2x4x16; 10 pieces, 2x4x14; 6 pieces, 2x6x12; 2 pieces, 6x6x14; 4 pieces, 6x6x12; 2 pieces, 6x6x10; 2 pieces, 2x4x14; 4 pieces, 2x4x12; 3 pieces, 2x4x10; 515 feet, 1x12x12; 25 feet, 1x12x16; 4 pieces, 1x6x14; 8 pieces, 1x6x12; 2 pieces, 1x6x16; 3 pieces, 1x10x14; 7 pieces, 1x10x12; 10 pieces, 1x2x12; 22 pieces, 1x2x14; 600 feet, sheathing; 70 feet, 2-inch matched lumber; 50 feet, ¾-in. V. matched lumber.

All the material was planed, as the intentions are to paint the building, but the dressed lumber is unnecessary where not desired. Second-hand lumber would be just as good, as far as protection and warmth are concerned. The roof was covered with a special roofing, and in this case particularly a cheaper sheathing would do upon which to cover. Lumber which usually ex-

ists around the farm could be requisitioned for this purpose, and thus reduce the expense very materially. The previous list is given to convey some idea of how much would be required. No suggestions are necessary as to the quality; that is a matter of taste. However, substantial material should be used at all time.

A Long House.

Editor “The Farmer's Advocate”:

In the last issue of “The Farmer's Advocate” I saw an enquiry for a plan for building a henhouse; by G. M. S. I built one two years ago on the same plan. The north side and two ends I built of cement. The south of matched lumber with an abundance of glass. The house is 36 feet by 12 feet; the north is 8 feet high with a three foot hall. The south side is 5½ feet high. I have trap doors for gathering the eggs in hall, and the house is divided into three apartments, three feet of board, rest wire.

It has proved very successful. I have pure-bred Barred Rocks and they have laid all winter. On south side I have a large yard enclosed with chicken wire divided into three parts, so as to let them out and still keep them separate.

Middlesex Co., Ont. CONSTANT READER.

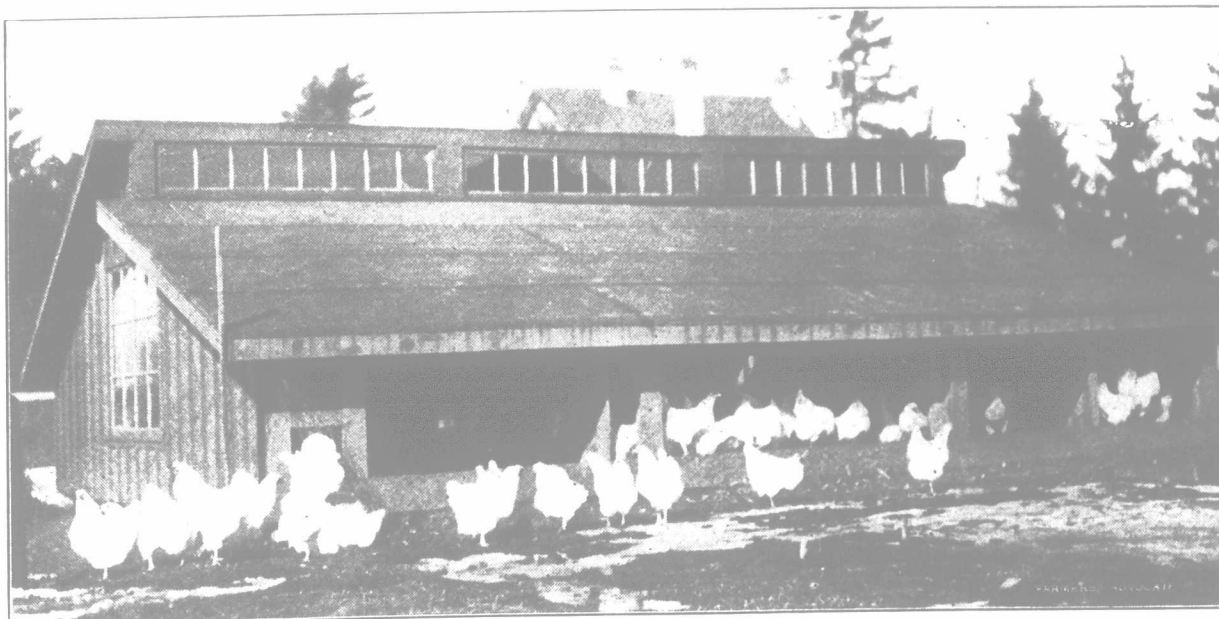
HORTICULTURE.

Growing Nicotine for Spraying Purposes.

Nicotine has long since proved its poisonous properties and its usefulness in destroying insect life. In some districts fruit growers have experimented with the tobacco plant in search of a cheaper source of nicotine than through the ordinary channels of commerce, but the growth of tobacco exclusively to produce the drug has not yet become common. The Agricultural Experiment Station of Virginia conducted considerable investigatory work, and their results were published in a bulletin which is the authority for many of the figures contained in this short article. As an effective means of battling with aphids and other plant lice nicotine has been found very useful in this country, but its price does not compare favorably with that of other spray materials. For fruit growers and stockmen as well the product would be useful if the plant could be grown and the drug extracted without too much trouble. One difficulty arises in that the percentage of nicotine in the plant varies considerably, and the extracted product should be analyzed before it is applied; yet with our numerous colleges and governmental institutions that obstacle should be easily overcome.

The nicotine content of tobacco leaves varies from one to over five per cent., depending upon the variety of plant and nature of the soil. When a crop is grown on land fairly rich in nitrogen the nicotine content usually runs high. The percentage is highest at maturity, and decreases from that time whether the crop is allowed to remain in the field or is harvested and cured. By soaking the leaves and stems of the plant in water for 24 hours with frequent agitation, about three-quarters of the nicotine will be extracted. This should be done in a closed container to prevent too much volatilization of the product.

It has been found that a solution containing .05 per cent. nicotine will kill plant lice, and if 50 lbs. of dried plants be soaked in 100 gallons of water and 1 part of water added to each part of solution obtained the resulting mixture will test in the vicinity of .05 per cent. However, it would be an easy matter to have the ex-



The Open-front Henhouse at Weldwood.