

determine the capacity of the plant he expects to buy for both lighting and power purposes:

Flat iron consumes 600 watts, which is approximately equal to 30 lights.

Electric toaster consumes 525 watts, which is equal to approximately 23 lights.

Washing machine motor, one-sixth horse power, consumes 200 watts, which is equal approximately to 10 lamps.

Water pump motor, one-sixth horse-power will consume as above.

Water pump motor one-half horse-power consumes approximately 600 watts, which is equal to 30 lights.

Vacuum cleaner consumes 160 watts, which is equal to 8 lights. Cream separator motor one-sixth horse power consumes 200 watts or the equivalent of 10 lights. This size of motor will also drive a churn.

An 8-inch electric fan will require 40 watts, or the equivalent of 2 lights.

The makers of some plants are inclined to discourage the use of electric irons as they draw off so much current. However, several of these who sent in information are using them with apparent success, at least there is no information to the contrary.

**Storage Batteries**—The term is misleading as the electricity is not stored as the name might imply. The action is chemical and the current is given off by chemical action. A storage battery consists of one or more cells. Each cell consists essentially of positive and negative plates, immersed in an electrolyte, the electrolyte consisting of a mixture of distilled water and sulphuric acid. Water is lighter than the acid and therefore, a hydrometer will sink deeper in water than in acid. The more acid in the water the less depth the hydrometer would sink. This depth that the hydrometer would sink is shown on a graduated scale, and is designated specific gravity. As the discharge continues the electrolyte becomes weaker, due to the fact that the acid goes into the plates, producing the electric current, and at the same time producing the compound of acid and lead called "lead sulphate."

A hydrometer is necessary to determine the specific gravity of the electrolyte, or in other words, to see how much the battery is charged. So be sure to have a hydrometer to test the cells. When fully charged, a reading of 1,300 will be observed, and when fully discharged the reading will be only 1,150. It should never be allowed to run down entirely.

By specific gravity we mean the relative weight of any substance compared with water as a basis. Pure water, therefore, is considered as having a specific gravity of 1, usually written 1,000. An equal volume of concentrated sulphuric acid weighs 1,835. The same things are true of the storage battery on an automobile. Great care must be taken in cold weather not to let the battery get discharged too low, as it will freeze more readily than it will when fully charged. Distilled water must be used or trouble will be sure to follow. It seems hard to believe, but the expert battery man of a large automobile concern told the writer that some batteries actually came into the shop filled with anti-freezing solution and another had coal oil. It is high time that people who own such equipment would take the advice of the manufacturers regarding the care of it, and realize that anything that is wet will not do for a storage battery.

## THE DAIRY.

It pays to buy a good bull. A scrub is dear at any price.

At the Kansas Holstein Breeders' spring sale, 82 head averaged \$326.76.

H. H. Curtis, of Pulman, Wash., recently disposed of 53 Jerseys, including 7 small calves, for an average of \$347.26.

Sixty-seven Jerseys recently sold by auction at Fort Worth, for a total of \$12,430. The top price was \$625; this figure being paid for the bull, Brilliant Scholar.

Don't allow vermin to torment the calves or young stock. Four parts cement to one part hellebore sifted into the hair will destroy the lice. Vermin keep stock, a calf in particular, unthrifty.

Major Dupont B. Lyon, of Sherman, Texas, recently disposed of his herd of 68 Jerseys by auction at an average of \$178.88. Anna's Lad was the highest priced animal in the sale, bringing \$415.

Don't be in a hurry to get the cows on grass. It is much better to feed a week longer in the stable and give the grass a chance to get a start. If it is cropped off closely early in the spring there is likely to be short pasture during the entire season.

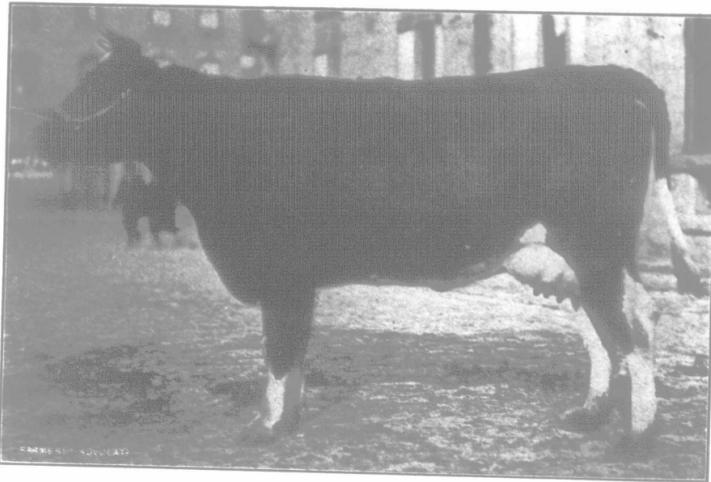
Ringworm frequently infests young stock. It is unsightly and is contagious. If not looked after it spreads rapidly, while the face and head are the favorite parts attacked, it may be found on any part of the body. The patient should be isolated to prevent contagion to healthy stock. Moisten the scales with sweet oil to remove them and then apply tincture of iodine twice daily until cured.

Care should be taken to keep the stable well ventilated. This is possibly more difficult in the spring than during the most severe part of winter. One day it is quite warm and the next day a cold Nor'-wester may be blowing. The cold draft through the stable may be detrimental

to the milk flow and may also cause the calves to take cold. If stables are too warm there is a tendency for the cattle to perspire and go off their feed.

### A Banker Assisting in a Cow Campaign.

A "Family Cow" campaign has been started in Raleigh, North Carolina, by the State dairy agents and bank officials. The banker of the town not only said he was in favor of any movement to help put more dairy cows on the farms of the locality, but went farther and offered to advance seventy-five per cent. of the purchase price of any cows to those who wanted to own one, as he believed that dairy cows were a sound investment for both banker and farmer. The campaign had rather a novel opening. The banker had a stall fixed up on the main floor of the main banking room in which a Jersey cow and her calf were kept for a day, and were viewed by 3,590 visitors who not only viewed the cow but had the privilege of hearing prominent men discuss dairy problems. It was pointed out by the speakers that one in every six farm families in the United States is cow-less, and that there was no reason why some at least of these families could not feed and care for at least one cow. A good average cow would produce enough milk and butter to pay for her feed and leave a substantial profit. As an educational feature the exhibit made an impression that will not soon be forgotten. The cow exhibit in a bank building brought people from all walks in life to see what was the idea of making a cow-stable out of a marble and bronze banking house. It was pointed out that the dairy cow, "foster mother of man," is likewise the salvation of the one-crop system of farming. While it may not be possible for every bank manager to put on a cow exhibit in his bank building, many of the bank managers could do more than they are doing to assist the farmer in the purchase of stock. The more live stock that is kept on the farms the better it is for the country, as well as for the individual. Some of our Canadian bank managers might follow the step taken by the Raleigh banker in offering to advance a certain percentage of



Duchess of Norfolk.

Winner of the three-year-old class in the dairy test at Guelph in 1917 for A. E. Hulet, Norwich, Ont.

the purchase price to those wanting to secure a good cow. A little more co-operation between the banker and the farmer would be an advantage to both. Agriculture is recognized as the basic industry and fundamental to the life and prosperity of the country, but yet many a tiller of the soil finds difficulty in getting the banker to consider live stock or grain as sufficient security when a loan is desired to further the farm operations. Would that there were more bankers of similar disposition to the one from Raleigh.

### Worth Consideration.

EDITOR "THE FARMER'S ADVOCATE":

Perhaps some of your cows gave twenty-five pounds of milk yesterday, and some gave twenty-two; the difference of three pounds in the day, a pound and a half in the milking might easily be overlooked. In fact the smaller quantity might appear the larger on account of more foam on top, and might easily pass as the larger mess if not weighed.

But a pound and a half at a milking may amount in a lactation period to a thousand pounds and that is worth consideration.

By testing the cows no man could be a thousand pounds astray in his judgment between two cows, for he would have the weight given by each cow jotted down at the time. Some men weigh three days per month, many prefer to weigh daily, it is better; the two different printed forms are available for free distribution, write and get them, stating which you prefer, the daily or three-day form.

A thousand pounds of milk, worth say twenty dollars may affect your decision in selling or keeping a cow. The good herd that you have in your mind's eye can be built up by giving each producer due credit. Don't sell a good cow not knowing her real value and so sacrifice twenty dollars worth of milk for the sake of a one dollar sale.

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C. F. W.

### Alberta Butter in Ontario.

Ontario people are prone to think of the Western Provinces as being devoted almost entirely to grain growing. However, mixed farming and stock raising are being practiced throughout the West. Alberta in particular is fast becoming noted as a dairying country. It is only a few years ago that Alberta furnished a market for Ontario butter, but so rapid has been the growth of the industry in that Province that butter from Alberta is now competing with Ontario butter on the world's markets. That is not all, Alberta butter is being sold in the midst of one of Ontario's best dairy centres and at a lower price than best Ontario creamery butter. Does this mean that Ontario dairymen are unable to meet the home demand for this particular product, or can Alberta dairymen produce cream at less expense than the Ontario farmer? Whichever may be the case, the fact remains that Alberta butter is for sale by Western Ontario produce men.

The grain of the Alberta butter seen in a Western Ontario store was excellent and the flavor would score high. The product was made from pasturized cream and was first grade. It did not contain quite as much moisture nor as much salt as is found in the average Ontario butter. Dry, fresh butter, is favored by many consumers, although fairly salty butter is preferred by others. The texture was firm and fine and while the color was not high it was uniform. A system of grading of cream and butter is followed in Alberta which has been responsible for the uniformity in quality of the product turned out, and has aided in putting the creamery industry on a firm basis. The number of cows kept has increased rapidly during the past few years as it has been found that the dairy cow utilized the product of the field to good advantage. In Ontario the cow has proven her worth but her product has not been given the care and consideration that it deserved. Lack of uniformity in quality of dairy and creamery butter has not given Ontario butter as secure a place on the market as they might have had were a grading system adopted years ago. However, the step has been taken and there is every reason to expect that ere long the product of Ontario's many creameries will be uniform in color,

texture, flavor and salting. This will materially aid both the home and export trade as once a grade with merit has become established, customers look for that grade or brand. Grading of cream and butter has helped Alberta dairymen and it will greatly benefit the dairymen of Ontario. When an article is purchased on its merit, an effort is made to have it as high-class as possible. When creamery owners pay for cream according to quality, they will get better cream from the farm, and when butter is sold on grade the creamerymen will bend every effort to have as much as possible of their product grade high. Alberta butter has won its way into the markets of the world by its quality, and quality has been secured by care in handling cream from the time it is produced at the dairy until it is made into the golden

bricks, and even then care is taken that the packages are neat and clean, and that the butter is properly packed in these packages. Alberta butter on sale in Ontario cities is no reflection on the quality of Ontario butter, but rather shows a falling off in the supply.

### The Milking Machine.

EDITOR "THE FARMER'S ADVOCATE":

The cows at the Nova Scotia Agricultural College Farm have been milked with a machine since January 1916, about two and a half years. In that time a number of new records for milk production have been made, and the average production of the herd has been materially increased. Very little trouble has been experienced in getting the cows accustomed to the action of the machine. Occasionally an old cow objects and will not "give down" her milk. This has only occurred in one case in our herd of some twenty cows in the two years. The heifers take to the machine very kindly and we have practically no trouble whatever in using it on all the cows operating the one noted above.

Operation of the machine calls for about the same amount of care as is necessary to run an ordinary stationary gasoline engine. We have used a two horse-power electric motor to operate three single units and found it satisfactory. Any man who is a good hand-milker possessed of ordinary intelligence, and interested in the cows, will handle the machine in a way to get good results. A bright man who has not been accustomed to milking by hand will soon learn to do good work with the machine.

In the two and a half years we have been using the mechanical milker we have never known any harm or injury to result to the cows from its use.

Cleaning the machine is not a difficult operation but must be properly done every day. It requires some time and thoroughness, and cannot be slighted without disastrous results. The rubber tubes must be cleaned

in warm water since they can be placed after left there until ounce of formalin solution tends to tubes and cups is a law against the use of tubes are thorough it through then From report Ottawa, it appears machines on the Truro, N. S.

### Plan For

A few years brought forth greater portion two of corn for at all was grown particular crop nated the idea serve it and give the winter months benefactors to with at the time have existed a has been a case new silos erected are erecting in fa

Dairymen will silo, and it is no silos on one day acre of corn w than can be pro other crop. By in a form that time. Corn is the cheapest feeds corn silage to herds would have account of the s

The seed corn many stockmen. States have furnished in the past, but last summer and would germinate. First nipped the unfavorable weather much moisture v For a time it lo kind for silage p arrangements ha certain varieties States. It may accustomed to pl produced even if will be of the M would certainly without corn for moth Southern S ticularly heavy acre than of s If the season is make good silage coarse stalks, a feeding in the fall ever, this does If sown fairly th produced than i of silage may not early-maturing d produced per acre quality.

Corn is not the sections of the D the growing of co has been tried as results both as a crop is grown ext not a success. F parts of the Dom O. P. V. mixture l at the Nova Scot this contains a lit does corn silage, table:

Constituents

Dry matter  
Protein  
Carbohydrates  
Fat  
Ash

There is scarce a crop of O. P. V. The land should one of the first crop around the last of