

60 cents per 100 lbs.—just half of Mr. Graham's cost of production.

M. MOYER read a paper on handling milk and cream. He said there was the same difficulty in getting cream to the creamery in a right condition, as in getting milk to the cheese factory. A small quantity of bad milk would spoil a whole mass of cheese; so with the cream—it did not take much to spoil a whole batch of butter. Farmers, as a rule, were cleanly people, but there was usually about one in ten who did the whole mischief, being careless, dishonest and dirty—doing everything by guess and acknowledging no system. He spent a good deal of time in standing by them and showing them how to do the setting and skimming. He advocated deep setting and submerging in water. The cans should be set in running water where possible, either by a running spring, or by a trough near the pump. The colder the water, the more cream, and it would rise quicker. The milk should always be set as quickly as possible after milking. Some milks creamed much easier than others. The milk did not need airing, providing the cow was in a healthy condition, and her food contained nothing deleterious.

GEO. BROWNING, Formosa, described his method of testing the cream and churning. He could not do without the Cherry Test Churn, for he had found that the same quantity of cream from different patrons produced from 4 to 12 ounces of butter, and each patron should be paid according to the quantity of butter made from his cream. This variation made the patrons more careful in skimming. A collector could detect when there was too much milk left in the cream, and then was the time to do the testing.

J. W. ROBERTSON read a paper on the production and treatment of milk. He said clover produced the best and most butter. They knew more about butter-making than about feeding, and the latter was the right place to commence to learn. Bran, peas and corn mixed were the best butter-producing foods, if fed in the right quantities and relative proportions. A cow should never be allowed to go back in her milking. Draining the pasture field was helpful in making richer milk, and a superior quality of butter. It resisted drought, made the herbage better and sweeter, and made the butter firmer and of a better flavor. By fencing the pasture field off into small areas, there would be a gain in the quantity and the quality of the yield, the exercise of the cows not being excessive, and there would be more and better food. The water should be pure and abundant. The cows should be milked with dry hands, and the udder should be brushed or washed clean. The strainer should be cleansed by hot water and brush for the purpose of effectually destroying the germs which have proved to be a source of fermentation and disease. Cows should not be milked at the dung pile, but a separate enclosure should be provided and kept clean. Cream rose more rapidly now than in the fall, the butter globules being larger, and fall butter was more solid. There should be some means of removing the sewage from the factories; some of them could be scented two miles distant. The best plan was to dig open trenches with underground drains about a foot deeper, allowing the liquid to filter through the soil,

thus utilizing the sewage as a fertilizer. Maple floors were better than cement; the former could be washed, while the latter broke away gradually in small particles. Pine gave off an offensive odor when damp.

Some discussion here arose as to the relative merits of the different kinds of floors for butter factories, in which bricks were generally condemned; but no floor in use seemed to give general satisfaction.

R. J. GRAHAM read a paper on permanent pastures, with which he had grand success. He recommended the following formula for a low-lying, sandy loam field: Timothy, 7 lbs.; Orchard Grass, 4; Meadow Fescue, 2; Red Top, 4; Kentucky Blue, 2; Italian Rye, 2; Perennial Rye, 2; Creeping Bent, 1; Tall Oat, 2; total number of grass seed per acre, 26 lbs. Red Clover, 1 lb.; Lucerne, 4 lbs.; Yellow Clover, 1; Alsike, 1; White Dutch, 3; total lbs. of clover per acre, 10; grand total, 36 lbs. per acre.

W. A. MACDONALD, London, read a paper on testing cream and milk, in which he doubted that the Cherry Churn was the most practical test, taking both accuracy and quickness into consideration. The percentage of fat was the true standard, and he thought this could be more easily ascertained than the butter standard; but an examination into all the existing tests should be made.

A motion was made to the effect that Messrs. W. A. Macdonald, Valancey E. Fuller, and J. W. Robertson be appointed as a special committee of the Association to examine into the different methods of testing milk and cream, and report at the next meeting. The motion was carried unanimously.

Mr. Primrose McConnell, an English dairy lecturer, says: "There are two systems of butter-making—one from sweet and the other from sour cream—both of which have much in their favor. By the former method the cream is used fresh, and it is possible to milk a cow, separate the cream, and churn into butter in less than an hour, the product having the finest delicate flavor and the best keeping qualities. In the other system the cream is kept for several days to allow a certain amount of acidity to develop, this being sometimes further aided by the addition of a little buttermilk. The cream is churned easier with this latter arrangement, and the butter is of a stronger flavor, but will not keep so long." Mr. McConnell also says that sweet cream should be churned at a slightly lower temperature than sour cream, and that the range of churning temperature should be 55° Fahr. in the summer to 65° in winter.

The quince grows well over a large part of the Province of Ontario, but as its value for preserving and flavoring is generally unappreciated or almost unknown, this fruit is not extensively cultivated, despite the high price obtained for it. It has been commonly supposed, says the Secretary of the Maine Pomological Society, that the quince required a low, damp situation. Hence it has been planted in out-of-the-way places and neglected. It succeeds better in a rich, mellow, deep soil, even if quite dry, than in one of opposite character. But a soil moderately moist, if well drained, is better still. The land should be kept in cultivation and receive a liberal top-dressing of manure every year. Mulching liberally will, to some extent, supply the place both of cultivation and manure, or be useful as an auxiliary to either or both.

Veterinary.

Medicines for Farm Stock.

Prof. Brown, Veterinary, in the *Journal of the Royal Agricultural Society of England*, tells the farmers how to make up a convenient "medicine-chest" for the domestic treatment of animals. The following is his list of remedies, with the doses, arranged in alphabetical order:

Aconite, Tincture (Fleming's).—Action sedative. Allays fever, and externally relieves irritation. Dose: horse and ox, 10 to 30 drops; sheep, 5 drops. Add water in proportion of a tablespoonful to each drop of tincture. For a lotion, use a tablespoonful of the tincture to a pint of water.

Alcohol, in the form of whiskey or brandy or strong ale, is useful for cases in which the system requires to be temporarily raised from a state of depression. Doses: horse or ox, whiskey or brandy, 4 to 8 tablespoonfuls; sheep, 1 to 3 tablespoonfuls. Strong ale, horse or ox, 1 pint; sheep, $\frac{1}{2}$ pint. Repeated two or three times a day.

Aloes.—A purgative for horse or ox. The ordinary aloetic mass and the solution should be kept at hand. Both preparations must be obtained from a druggist. Doses: horses, 4 to 6 drachms of the aloetic mass as an ordinary purgative; or, $\frac{1}{2}$ pint of the solution. Usually given in combination with linseed-oil in cases of continued constipation.

Ammonia Liniment.—Made by adding a strong solution of ammonia and oil of turpentine, $\frac{1}{2}$ part, to soap-liniment. A pint bottle of it, carefully stoppered, should be kept at hand. The liniment is useful as an application for sore throat and for all cases in which an external stimulant is necessary. Must be applied with the hand, and well rubbed into the skin.

Areca-Nut.—A useful worm medicine. The nuts should be kept in a stoppered bottle, in a dry place. When required for use, the quantity should be grated by means of a nutmeg-grater. Doses: horse or ox, $\frac{1}{2}$ ounce to 1 ounce of the grated nut, mixed with the food (corn and bran); sheep, 2 drachms; dog, $\frac{1}{2}$ to 1 drachm.

Calves' Cordial.—A form of chalk-mixture for calves and sheep. To be prepared by a chemist as follows: Prepared chalk, 2 ounces; powdered catechu, 1 ounce; ginger, $\frac{1}{2}$ ounce; opium, 1 drachm; peppermint-water, 1 pint. Dose: calves, 2 to 4 tablespoonfuls; sheep, 1 to 2 tablespoonfuls.

Carbolic Acid.—A powerful caustic and antiseptic, ordinarily used, in combination with 50 to 100 parts of water, as an antiseptic lotion to unhealthy wounds, and for disinfection purposes.

Carbolized Cotton and Gauze.—To be obtained of the druggist. Valuable antiseptic applications to wounds.

Castor-Oil, also Linseed-Oil.—Purgative. Doses: horse or ox, 1 to 2 pints; sheep, 4 tablespoonfuls.

Colic Mixture.—Equal parts of laudanum and sweet spirit of nitre, and $\frac{1}{2}$ part of chloric ether. A half pint bottle of it to be kept at hand. Dose: horse or ox, 2 to 4 tablespoonfuls in 3 parts of a pint of water.

Electuary.—A soft mass compounded with honey or treacle. Must be prepared by a druggist as follows: Camphor, 2 ounces; pow-