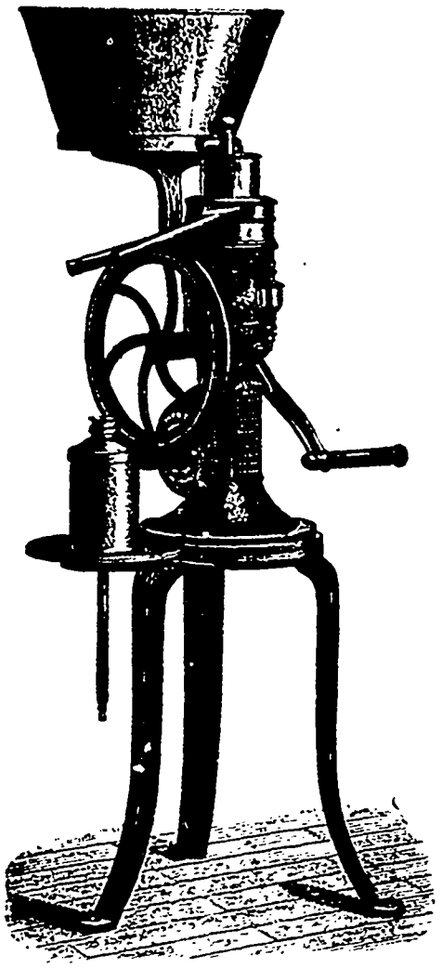


National Cream Separator, hand power.

to the milk entering the bowl; an inlet tube through which the milk is allowed to run into the bowl; an out let or outlets leading from the largest circumference of the bowl, with sufficient capacity to allow the skim-milk to escape nearly as fast as it enters the bowl; an out-let nearer the centre, through which the balance of the bowl contents (the cream) may escape, and the gearing necessary for revolving the bowl.

In selecting a centrifugal separator (hand or power) the following points should be considered: First, effectiveness of skimming, best judged by testing the skim-milk in the special skim milk test-bottle where it should not show over .10 of one per cent. fat. 2nd. Durability and simplicity of construction. 3rd. Power required to operate it. 4th. Safety. 5th. Capacity; the cream separator in the private dairy should be large enough to handle a single milking from the herd within an hour. In the factory there should be sufficient separator capacity so that all the milk may be separated in three or four hours' run. In any case the machine should skim clean up to its advertised capacity. 6th. Cost, the question of first cost is not of great importance when compared with any of the preceding points. What some might consider a slight loss of fat in skimming, would soon pay the increased cost of an efficient machine 7th. A separator should not be bought except from a responsible party who will give a written guarantee, covering the capacity, efficiency and freedom from defects, from faulty workmanship and material.

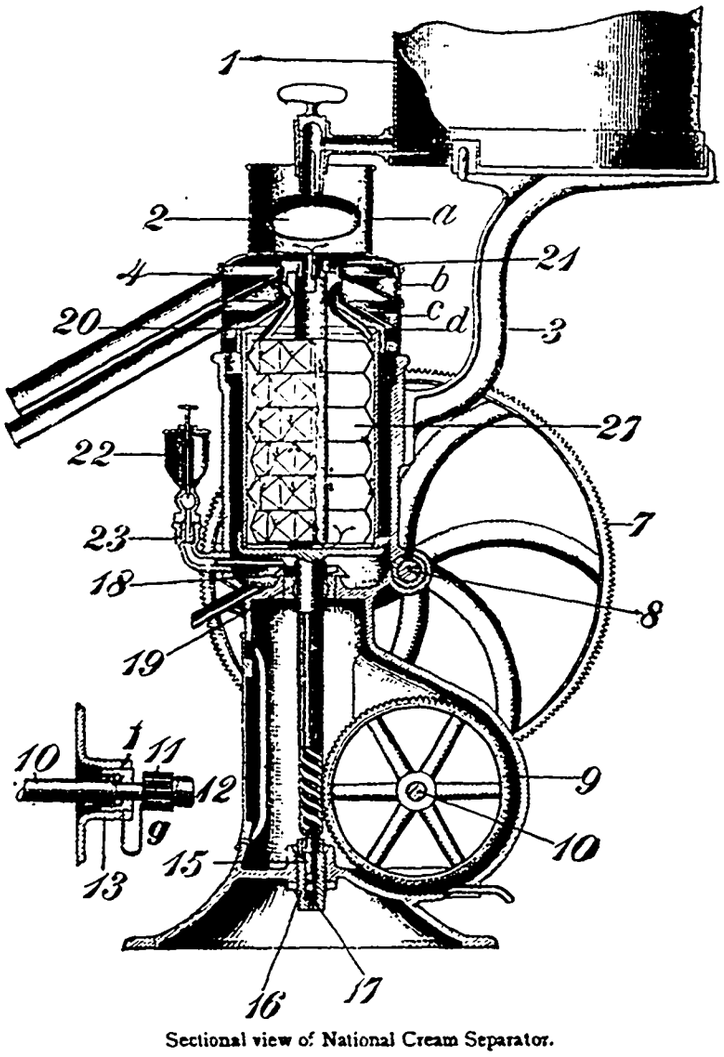
The competition among manufacturers is keen and the prices of separators are being reduced, while their efficiency is being increased. The choice of a machine is somewhat puzzling to the average layman. The high efficiency of the various kinds of separators sold in Canada leaves little to be desired. Naturally some will put more stress on some one of the points enumerated than on others, and there is sufficient variety so that the tastes of all users may be suited. Separators are now on the "free list," so that our dairymen can have the finest machines on the Old Country and American markets, as well as those made in Canada, to choose from.

A few years ago the 4,000 pound separators had considerable sale, but operators now wisely prefer to have two smaller machines in place of one very large one in the average creamery.

Whether to purchase a belt or turbine separator is another much-discussed question. The turbine separator is driven on the principle of the rotary engine, or turbine water wheel. It does not use steam economically, but the same thing is true of many of the steam engines in use in our factories. If the engine has sufficient capacity and is in good running order, the belt uparator will be found perfectly satisfactory and more economical than the turbine, but with a small engine that would be working almost up to the breaking strain, and used steam extravagantly, a turbine separator had better be put in. In the hand sizes the larger machines of the different makes can be fitted with pulleys to run by power, either animal, steam or gasoline engines being used with perfect success by practical dairymen.

The following is a list of the principal cream separators sold in Canada:

The Alexandra line of separators is manufactured by R. A. Lister & Co., Dursley, England. Branch houses are located at Montreal and Winnipeg. This separator has a very large sale in Canada. The hand sizes are extensively used by the patrons of the Dominion Government creameries of the North-west. The bowl is made in one solid piece, which does away with the necessity of using a wrench in putting




Sectional view of National Cream Separator.