return, he should remove her from the herd and replace her by one of greater productive capacity.

A milk to be reasonably safe for human consumption should conform to the standards either of a certified milk, or an inspected pasteurized milk.

Certified milk is sold only in bottles, which are sterilized, filled and sealed at the dairy immediately after the milking, and in these packages are delivered to the consumer. In the city of Toronto three dairies supply milk certified by the Milk Commission of the Academy of Medicine. Their standard is as follows:

The herd milk shall contain 12 to 13 per cent. of total solids, of which 3½ to 4½ shall be butter fat.

It must be free from coloring matter, preservatives or other foreign substances; from blood, pus or disease-producing organisms; from all disagreeable odors and tastes.

It shall not have been heated in any way, nor frozen.

All cows shall have been tuberculin-tested by the veterinarian of the Commission before entering the herd and found healthy, and shall be retested every six months.

It shall have been cooled to 45 deg. F. within one-half hour after milking, and kept at not higher than 45 deg. F. until delivered.

It shall not be more than 24 hours old when delivered to the customer.

It shall not contain during July, August and September more than 10,000 bacteria per c.c. nor in the remaining months of the year more than 5,000.

The veterinary inspector and the physician of the Commission shall each month inspect the herd, the health of the employees, and the hygienic conditions of the dairy.

Their requirements relating to barnyard, stables, water supply, cattle, milkers and other helpers, the dairy, etc., are too long to be quoted in this paper, but those interested may secure a copy on application to the Secretary at the Academy of Medicine, Toronto, or the Milk Commission of the Canadian Medical Association.

Certified milk, because of increased cost, can only be produced in limited quantity. For general use we must rely on the exercise by the producer, transportation agent, vendor and consumer, of reasonable care, and where there is any doubt as to the possibility of contamination, ensure safety through efficient pasteurization.

Pasteurization consists in heating milk in a closed vessel to a temperature of 140 deg. F. for 30 minutes, or 150 deg. F. for ten minutes, immediate refrigeration to 40 or 45 deg. F., and keeping at that temperature until delivered to the consumer.

In large municipalities this is preferably done under inspection or direction of the health officer, but may be efficiently done at home. It is not to be counfounded with boiling or sterilizing by heat, which processes destroy the ferments present, seriously interfere with the subsequent rising of the cream, and modify the taste of the milk.

Pasteurization produces none of these effects, but does effectively destroy all pathogenic organisms and thus gives us an absolutely safe milk. These are the rules formulated by the Canadian Medical Association Milk Commission for the production of "Inspected Milk," which, when pasteurized, is a perfectly safe milk. The rules involve no other expense than those requisite in maintaining a clean dairy, clean stable, clean cows, clean utensils, and careful handling of the product.

The following regulations ask for nothing more than the cleanliness required in the preparation of any other article of diet placed on our tables:

Barnyard.

1. Manure should not be allowed to accumulate in the barnyard in the summer time, and should never be allowed to come in contact with the stable or milkhouse. It gives rise to bad odors and encourages flies.

2. The barnyard should be well drained.

Stables.

1. Cows should be housed in well-lighted and well-ventilated stables in order to keep them in good health.

2. There should be at least 500 cu. ft. of air space for each cow.

3. No other animals but cattle should be kept in a cow stable. It should not be used for storage of any kind because of the danger of accumulating dust.

4. The stable floor should be made tight and preferably of some non-absorbent material with a proper slope for drainage.