

where the milk supply comes from; that the cows are in perfect health and are properly fed. Cows allowed to roam feed on herbage unfit for the production of healthy milk especially for infants. Startling announcements occur daily and among the latest is that of Dr. Mason, of Hull, who asserted at the recent meeting of the Yorkshire association of medical health officers, that milk obtained from cows affected by tuberculosis will convey consumption to human beings.

As the cow is so necessary an animal to man's wants a greater regard should be paid to the hygienic surroundings. This may or may not meet the views of the dairy owner, but the matter is too important a one to be left to individual caprice and the milk supply of towns should be under the direct supervision of skilled inspectors. It is not sufficient to guard against the milk being watered, it is essential that everything connected with its secretion and delivery should be under strict hygienic rules and regulations.

TYROTOXICON—ITS PRESENCE IN POISONOUS CHEESE, ICE-CREAM AND MILK.

BY VICTOR C. VAUGHAN.

POISONOUS ICE-CREAM.

June 13, 1886, I received from Dr. Henry Baker, Secretary of the Michigan State Board of Health, a pint bottle about two-thirds full of melted ice-cream, with the request that I would analyse it, as some eighteen persons had been seriously affected by eating of it. Dr. Baker also sent some of the vanilla which had been used as flavouring. It was thought that the poison would be found in the vanilla, because some lemon ice-cream furnished at the same gathering had not affected those who ate of it. As

the readiest means of deciding this, my assistant Mr. Novie, and myself, took at first 30 drops each of the vanilla extract. No ill effects following this, Mr. Novie took two teaspoonfuls more, with no results. This settled the question of the poisonous nature of the vanilla more satisfactorily than could have been done by a chemical analysis.

We then added distilled water to the cream, and, after thorough agitation, filtered it. The filtrate was tested for tyrotoxin by the method already given. The aqueous solution, after the spontaneous evaporation of the ether, was given to a cat. Within ten minutes the cat began to retch, and soon it vomited. This retching and vomiting continued for two hours, during which time the animal was under observation, and the next morning it was observed that it had passed several watery stools. After this, although the cat could walk about the room, it was unable to retain any food. Several times it was observed to lap a little milk, but on doing so it would immediately begin to retch and vomit. Even cold water produced this effect. This condition continuing, after three days the animal was placed under ether and its abdominal organs examined. We certainly expected to find marked inflammation of the stomach. But we really did find the stomach and small intestines filled with a frothy serous fluid, such as had formed the vomited matter, and the mucous membrane very white and soft. There was not the slightest redness anywhere. The liver and other abdominal organs seemed to be normal.

It should be remarked that this cat was about two months old. Attention is called to this, because young animals are affected by this poison much more readily than older ones. Tyrotoxin has no special resemblance, so far as is known, with conium, but the