

WARM OR COLD WATER.

Mr. Dugald Leitch—I would like to ask Prof. Arnold if he has tested the different effects upon the milk of giving water of different temperatures to cows during winter? I have made some experiments and found there was a great difference to the produc-

of milk. It is a subject of much importance, for in this country there is sometimes much trouble in getting water.

Mr. Arnold—Give us your experiments.

Mr. Leitch—My experiments have not been exact. Sometimes I water my cattle at a pond, making a hole through the ice. At other times I have taken the water from a well, the temperature between the water in the well and the water in the pond being probably 15 or 20 degrees. I found that when I gave them the pump water they gave more milk than when they got it from the pond. After drinking from the pond or the roadside, I found they would drink almost as much well water as if they had not taken any of the colder water at all.

Rev. Mr. Clarke—Did you ever try blood-warm water?

Mr. Leitch—Yes; I always give them lukewarm water with their feed.

Rev. Mr. Clarke—If you would always give them blood-warm water, it would be better for them.

Prof. Arnold—There have been some experiments on this subject, but I am not able to give the exact statistics. The results, so far as I can recollect, have been decidedly in favor of moderately warm water—lukewarm water. Where it has been warmer than that the effect has not been so satisfactory. I believe the cows prefer water at about sixty degrees. Warmer water than that does not work well with the human stomach; much of it is apt to produce vomiting, and it may have a like effect with the cow. Very cold water, on the other hand,

stops digestion, while if the stomach is weak the effects are very injurious. Mixed with food substances, however, cold water does not have quite such an ill effect, as it warms somewhat during the process of mastication. It has been observed by Dr. Beaumont that digestion does not commence until the temperature of the contents of the stomach come up to the normal standard.

The Chairman called upon Mr. Clay, manager of Bow Park Farm, to address the Convention.

Mr. Clay, on coming forward, said: Mr. Chairman, I am sure you have called upon me very unexpectedly, and I cannot be expected to make much of a speech before such a Convention as this, for dairying is a branch of the business with which I have not the slightest acquaintance. I came here upon your advice, to learn and not to speak. I have been engaged for the past three or four months with Messrs. Belle and Reid, the other members of the Commission appointed to inquire into the extent and resources of the various departments of American agriculture, for the benefit of the British agriculturists. Among other things, I was instructed to inquire into the condition of the dairy interests of Ontario. That is what brought me among you to-night. I have been greatly interested in your discussions, and I am sorry that I cannot give the result of experiments of my own in regard to watering cattle. But all the evidence brings us to the conclusion that the water most of the cattle of Ontario are compelled to drink in the winter time is detrimental to their health. Cold water, used either by human beings or other animals is sure to bring evil results. I believe one of the worst evils prevailing in American society is the use of so much ice water in summer time. While I am on my feet, I may say to the dairy farmers and milk producers that the way the cattle of Ontario are treated in the winter time is most disgraceful. In the summer they are sleek and nice. In the winter they are kept in sheds of loose boards, with the