

increased knowledge and skill in the development and management of acidity in the curds,—all have tended toward an improved product. But cheese-makers must not deceive themselves that the whole improvement in the character of our cheese is due to the causes named. The low average temperature of the season has been of important service in arresting the development of that putrefactive element, which is always so troublesome in our hot summers.

The inventive genius of our people must now be turned to this point: the production of artificial means of a temperature and condition of atmosphere best adapted for securing and preserving a delicate flavor in cheese. The man who can invent a practical and inexpensive method of regulating the temperature of factories, so as to be uniform at about 70°, would, by so doing, secure incalculable benefits to the dairy interest and make his invention, at once, a source of fortune to himself.

We know, practically, that a uniform temperature of 70° is best adapted to break down the casein in curing cheese, so that it will be transformed and amalgamated with the other ingredients of the cheese into that mellow and rich taste which the markets now demand as the highest type of this nutritious article of food. It is a well-known fact in science that the nitrogenous elements of food (casein) may be transformed into oil, but that fat or butter cannot be converted into the nitrogenous or flesh-forming elements of which casein is one form. It is to this particular transformation of the casein that cheese, not particularly rich in butter, when properly ripened, appears more mellow, rich, and buttery, than its analysis indicates. In other words, cheese made from milk that has been partially skimmed may, if properly cured, be more mellow and palatable than cheese made of whole milk when the curing process has been imperfectly carried on. These facts have been abundantly proved by the chemical experiments of Dr. VOELCKER; hence you will see how important it is to the cheese interest of this country that the ripening process in cheese be conducted properly and at a temperature to produce the very best results.

Professor CALDWELL, in his recent lecture before the Utica Convention, has explained how the coagulation of the milk in cheese-making, as well as the ripening of the cheese, are due to a species of fungi, so minute as to be only recognized by the powers of the microscope. Under certain conditions they reproduce themselves in vast numbers, and when temperature and other things are favorable, these fungi subserve the very important purpose of breaking down the casein and mellowing the cheese into a delicious morsel of food suitable to the wants of man. And he showed also that when temperature and other things were unfavorable, both the milk and the cheese were taken possession of by another class of fungi, injuring the product by its putrefactive element. It is this latter class of infusoria that the cheese-maker has most to contend with and keep in abeyance.