dollars loss to the dairy interest. I urged the use of tin pails for milking at our Convention, more than two years ago, and suggested how they should be made. They should have concave bottoms with no sharp corners, where milk can lodge and be difficult to cleanse. They should have a narrow rim upon the top, turning over, so as to slip down, and nicely fit in a wooden pail, which encases it for protection. Every factory should urge upon its patrons the use of the tin dairy pail. It is just now beginning to be adopted in the old districts, and must come into general use, because it is so difficult to keep wooden pails clean, that often the most scrupulously neat fail to do so. It is wonderful what a small quantity of ferment will taint a large quantity of milk. The accumulation of old and decomposed particles about the corners and sides of a wooden pail, communicates its poison to the good milk and sets it into a ferment which the cheese maker is often unable to control. Painted pails are objectionable, because the paint imparts its taint and poison to the cheese.

My friend, Mr. Farrington, who used to deal largely in cheese at our market, whom we were sorry to lose from New York, and who was regarded as one of the best judges of cheese in the State, was the first, I think, to bring this matter of milk poison from paint before the public. In several samples of poisoned cheese, condemned in the city as poisonous, he traced it to newly painted tubs and pails, which were then in common use among the dairymen of Herkimer.

I have alluded to cleanliness in milking, and about the dairy, as an important element in securing good flavor in cheese, and it cannot be urged too strongly upon your attention.

The feeding of swine at factories, unless far removed from the buildings, cannot be recommended. Some of our new factories in Oneida have entirely banished them from the premises, and the whey is taken home by patrons. I have seen some of these factories, where everything is kept sweet and clean both at the factory and among patrons, and the cheese made is becoming noted for its delicate flavor.

These questions are just beginning to be understood and appreciated by cheese-makers, and you will do well to profit by that which we have been so long in learning.

RECENT IMPROVEMENTS IN FACTORY BUILDINGS, ETC.

In the arrangements and fitting up of factories, some important improvements are now being introduced. Substitutes for the steam engine and boiler are being tested. One of the devices recently brought out is an arrangement of gas pipe set in a furnace, upon which the fire comes in direct contact, heating the water by this means. Another device just put in operation is a nest of hollow cast iron boxes connected by pipe, and set in a brick furnace, the fire applied underneath. Mr. Sears, of Madison Co., who owns two factories, has taken out his steam engine, and has tested this contrivance. He says they are the most perfect heaters that have yet been invented, and that he would not use an engine if furnished without cost. This new heater, for a large factory, only costs $150; it is simple, substantial, and gives perfect control of temperature. In a test at his factory of the wood consumed, he finds that three-fourths of a cord of three feet wood will manufacture 12,000 pounds of cheese.