

was largely distilled alcohol vinegar colored with malt vinegar, and sold for the latter. An amendment of the law to meet the case was recommended and adopted. The Ohio commissioners had now under consideration the vinegar made at cider mills, by putting the pressed pomace into a leach and running water through it. If such vinegar passed less than two per cent. of vinegar solids, it was clearly an evasion of the law, and would be declared contraband. "Vinegar solids" were explained to consist of malic acid, pectose and a trace of sugar.

The commissioners then adjourned to meet the dairymen at the city hall. John Gould on being called up said that the meeting had been arranged in the belief that it would be a good idea for the dairymen to meet the commissioners, and discuss the needed changes in laws relating to dairy products. The dairy interest of the country was a vast one, exceeding in value that of the national banks, and should be as carefully guarded by legislation as that of any other interest. The question of poor food was important also, and every one should be in haste to bid godspeed to all efforts to bring about the time when the wholesale adulteration of much that we eat would be unconditionally ended. As yet there were but nine States which had commissioners to inspect food substances and punish adulteration.

Hiram Smith, the veteran Wisconsin dairyman, who profitably keeps 100 cows on 200 acres of land, next addressed the meeting. He did not see much prospect of cutting off the oleo competition by law. The two cent tax certainly had not killed the business, and it looked as if dairymen must meet the situation with other than legislative warfare. Oleomargarine found considerable sale where the law could not reach, as it was sold to ignorant people who could not tell the difference. He would educate the people to like dairy butter by making a good article. A dairy school was to be started at the Wisconsin Experiment Station. When consumers generally were educated to appreciate the flavor of good dairy butter then they would not buy the spurious. The fact was, much homemade butter was a disgrace to the makers, and gave color to the claim of the Armour and Swift crowd that their base imitations of butter were the best. We might possibly meet the bogus butter elephant by cheapening production. When we can produce a pound of butter as cheaply as cattle feeders can produce two pounds of meat, then oleo oil would cease to be a successful rival. We could not make butter as cheaply as that until we radically changed our methods. The pasturing of a cow on three acres in summer, and then having her consume the product of as many more in winter would not meet the situation. If we investigated we should find that the rich nitrogenous foods that helped so materially in producing rich milk and large butter yields lost but little in manurial value. Cottonseed meal lost but 15 per cent., and bran but 10 per cent. Feed such foods abundantly and return the manure to the soil, thus increasing not only the milk yield but the capacity of the land to keep more cows.

WHAT IS A STANDARD CHEESE?

After dinner a committee on resolutions reported with a view to bringing out discussion. The first one discussed criticised the present ruling of a former dairy commissioner of that Ohio standard cheese should be made of at least one-sixth new milk.

Henry Talcott, assistant commissioner, took the floor and explained that the commissioners held meetings in the leading dairy centres, and consulted with manufacturers of cheese as to modes of making and amount of skimming. They found only three full cream cheese factories in Ohio. The rest either skimmed the night's milk the next morning, or allowed

the patrons to do it. The question arose as to how much full milk a cheese should contain not to be called a skim-cheese.

It was found that most manufacturers skimmed in the fall months at the rate of 9 lbs. of butter to 1000 lbs. of milk, and on this basis Gen. Hurst, who was not an expert, and without consultation with his assistants, sent out his noted circular fixing the quantity of whole milk at one sixth, and thus established the brand known as "Ohio standard." Some manufacturers adopted deep setting, and some the centrifugal method of treating the five-sixths of skimmed milk, and this made a cheese very much poorer than the "night skims" made by most factories, which soon brought the Ohio standard cheeses into disrepute. To his personal taste, the taking of one pound of butter from 100 lbs. of milk made better cheese than a full cream, but it was possible to spoil a full cream in making, and there was a difference in night skims. Mr. Crozier, a manufacturer of Lorain county, thought that if the law allowed the skimming of 1 lb. per 100 lbs. of milk in April, May, June and July, of 1 in 80 in August, and 1 in 60 in September, October and November, it would be more just than the present ruling, which was a damage to the business.

W. B. Straight said that he represented the manufacturers. He ran a chain of factories in Geauga and Ashtabula counties, and knew something about making cheese. His custom was to have the milk set over night in vats holding 400 gallons. Spring water was run around it to keep it cool, and it was skimmed in the morning and made into cheese with the new morning's milk. Milk so treated does not part with more than half the cream that could be got out by the centrifugal machine or deep setting. Had been in the business 23 years and tried many experiments, and was satisfied that the cheese-maker who practiced night skimming could make a cheese that would satisfy the consumer, and at the same time pay the farmer more than in any other way. The present way of making night skims was just the way that farmers formerly made what everywhere passed as full cream cheeses. Not only did milk tanning manufacturers of cheese make them on this system, but cooperative factories followed the same system, and he knew of instances where cooperative factories had tried making full creams and then gone back to the partial-skimming system as the proper way. He did not think it possible to have a national law that would satisfy all sections, as the quality of milk varied in different States.

In an answer to an inquiry from the writer, Mr. Straight said he supposed most of the New-York State cheese branded "full cream" was such after the New York fashion of making, but he visited many New-York factories twenty years ago, and at that time the methods of making were so crude that more cream rose upon the whey than Ohio men skimmed off before making. "Why, it was so thick you could almost walk upon it." Perhaps they had improved in cheese-making recently, but it was a fact that Ohio cheese men bought whey butter of New-York factories at 6½ cents a pound for cheese reuse. In Ohio they skimmed a part of the milk before making, and made 20-cent butter; in New-York they skimmed the whey to about the same or greater amount, and made it into butter worth 25 cents for four pounds. The quality of Ohio night-skims came so near New York fall cream that there was only a difference of ½¢ per lb. in the largest cheese market in this country.

Mr. S. made two lots of cheese—one full cream and one skimmed at the rate of 1 lb. of butter to 90 lbs. of milk—and sent them to two large New-York dealers, branding the night-skimmed A, and the full cream B. They sold at the same price, but one of the buyers wrote that he thought the A brand a trifle the best.

Mr. Failensby of Lorain county thought Mr. Crozier's way