

For red and black cherries, black currants, red and black raspberries, and other red and dark coloured fruits, including red and dark grapes and red apples, a 1 per cent solution of boric acid in water was chiefly used. This was afterwards increased in strength with advantage to $1\frac{1}{2}$ and 2 per cent.

For the yellow varieties of raspberries, white and yellow cherries, peaches, gooseberries, white currants and other light coloured fruits, including green and yellow apples, a 2 per cent solution of zinc chloride in water was used.

For some red and dark grapes a solution of salicylic acid was employed with good results. One ounce of the acid was dissolved in eight ounces of alcohol and this solution added to two gallons of water.

Sulphurous acid was found very useful in brightening up and bleaching all discoloured specimens of white or yellow fruits, and gave them a very attractive appearance. The acid was used of the ordinary commercial strength in the proportion of four ounces to the gallon of fluid.

A short time prior to the closing of the Chicago Exposition I was requested to make a selection of the best of the preserved fruits which had been shown at Chicago, with the view of exhibiting them at Antwerp. As the preserved fruits prepared for Chicago were intended only for a summer exhibition, no necessity existed for making preparation against frost, but as it was then proposed to forward the Canadian exhibits to Antwerp about the middle of March, it was necessary for safe carriage to add to all the fluids a sufficient quantity of alcohol to prevent them from freezing.

An investigation was made by Dr. C. E. Saunders to determine the freezing points of weak mixtures of alcohol and water, for the purpose of ascertaining the smallest proportion of alcohol sufficient to prevent injury from frost during transportation. After many experiments it was found that a mixture of 15 parts of commercial alcohol 65 over proof with 85 parts of water was sufficient. This mixture was found to freeze at about 15 degrees above zero, but the frozen mass was of such a soft and yielding texture that when frozen solid in a thin Erlenmeyer flask the vessel was not broken, and a lead pencil could be easily pushed through the mass of fine loose crystals of ice.

Samples of fruits preserved in the solutions referred to are herewith submitted. These were put up during the summer of 1892, and hence have stood the test for more than a year and a-half, also the journey to Chicago and return, and the exposure there to the sunlight for six months.