Care of containers. Jars. When not in use the jars should be washed, drained dry, plugged with non-absorbent cotton wool and stored in a dry cupboard or room. Sterilise before use with a strong solution of potassium metabisulphite and citric acid as used above for corks. Wash well before filling with juice or cider.

Treatment of new barrels. New barrels need special treatment to remove any woody flavours. Fill with clean water and leave for two or three days to soak the timbers thoroughly. Empty and fill with a hot solution of washing soda (4 oz. per 10 gallons) and allow to stand for at least 24 hours. Drain, wash with clean water and add a small quantity of clean cider to neutralise any remaining soda. Bung down, roll vigorously, empty and wash out once more; the barrel is then ready for use.

Alternatively, if steam is available, lay the barrel on its side bung-hole downwards and introduce a gentle flow of steam through the aperture. When the condensed water running out is no longer discoloured, steaming is stopped and the barrel swilled out with clean water.

General barrel sterilisation procedure. Second-hand or freshly emptied barrels are washed out with clean water and then sterilised by one of the following methods:

(*a*) Fill with a solution of hypochlorite or domestic bleach, using 4 fl. oz. per 10 gallons of water, leave 24 hours, drain and wash out well, *or*

(*b*) Dissolve 3 oz. washing soda per gallon of boiling water and half fill the barrel with this mixture. Bung down and roll vigorously at intervals for half an hour. Leave to cool, drain and wash out.

After either of these treatments it is advisable to remove any traces of these chemicals with sulphur dioxide. Dissolve ¼ oz. potassium metabisulphite and ¼ oz. citric acid in a gallon of water, pour into the barrel, bung down, roll vigorously for several minutes then drain and wash out once more.

Barrels in need of special attention.

(*a*) Leaky barrels. If the cask is thoroughly wet, the hoops have been driven up tight and evenly and it still leaks, then it is better to send it to a qualified cooper for repair than attempt to cure the fault oneself.

(*b*) Dry barrels. If it is a small barrel, submerge it in a tank of water or if too large for this, wrap in damp sacks and soak from a hose pipe at intervals. After several days drive the hoops up tight with a mallet and blunt chisel and keep filling with water until it no longer leaks. A gentle steaming after the preliminary soaking is very beneficial. Never allow residues to dry out in a barrel; they are then most difficult to remove and act as a focus of infection.

(*c*) Vinegary tainted barrels. Wash out and give the washing soda treatment detailed in the preceding sub-section, but doubling the amount of soda used per gallon.

(*d*) Mouldy or musty barrels. If not too bad send to a qualified cooper to be shaved and burnt inside; when returned treat with hypochlorite as detailed previously.

(*e*) Foul casks. Caused by allowing water to become stagnant in a sealed barrel for a long time. Usually it is best to stop using the barrel for cider-making.

Barrel Storage. When the barrels are not in use they should never be allowed to dry out. As soon as they are emptied, wash out, sterilise and add ¼ to 2 gallons of the following mixture, depending on the size of the barrel—in each gallon of water dissolve ½ oz. citric acid and ½ oz. potassium metabisulphite. Bung down tightly and store upright in a cool cellar or shed. Invert at monthly intervals and every 3 months wash out and add fresh solution. When required for use, wash out and sterilise before filling with juice or cider.