

## Club meeting - Brandy Creek, Sunday 19th February 1989

Colin Goldberg and his wife Elizabeth warmly welcomed about a dozen members and their families to an enjoyable BBQ and meeting in quiet, pleasant country surroundings. Colin managed to delight his guests with some trading of surplus workshop items, and after a pleasant lunch, spoke to members and their families about his retirement occupation as a maker of "Fully Carved Traditional Rocking Horses".

Colin is one of only two makers in Victoria who are still making such items, and of course he repairs aged horses of all types. There are up to 25 pieces in a full safety rocking horse which is usually made of red pine and English beech. The horses were patented in November 1888 and their appearance could be very wild and frightening to children. Some superior horses had separate full leather saddles and there are specific traditional fittings which are used. Hair for horses was usually from the tail of a Hereford bull. The shaping of the horses was undertaken in any reasonable way and removed about a third of the initial weight. The coating and painting of horses saw the extensive use of hot glue and size which is then allowed to set for weeks prior to about ten coats of paint and dappling.

Colin has been asked to provide a fuller explanation of his fascinating occupation as a rocking horse maker.

Many thanks to Colin and Elizabeth for a great day.

\*\*\*\*\*

## COOPERING - ART OF THE OLD WORLD

### Demonstration of Coopering by Len Sunnett

Len Summett is a cooper by trade having been taught in England. He has previously demonstrated his considerable skills at an exhibition at the Old Meat Market. On this occasion he made up two barrels during a pleasant demonstration at his own home. Staves had been prepared and he began with the process of raising up. This was followed by steaming instead of firing and the fitting of temporary hoops. Both casts were chined and a sun plane around the chine. The traditional chir plane was then used to true the inside of the cask. A csroze was then

used to cut the actual groove or rebate for the head. Finally the head was put in place by relaxing the chine hoops and then tightening it again after pushing up the head. The final water test of this cask was successful and left us all wondering at the skills exercised by Len. Given the differing sizes of the staves, experience is clearly a very important factor, and it is easy to consider how young apprentices could easily get it quite wrong!

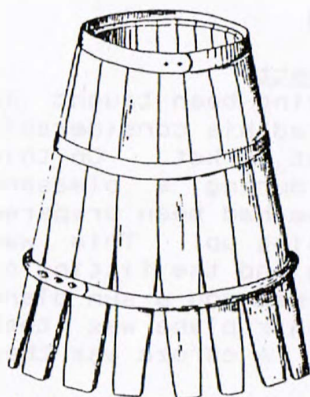
A VHS video tape of the afternoon was taken and is available as a raw unedited tape for those who may wish to view Len's skills.

### DID YOU KNOW?

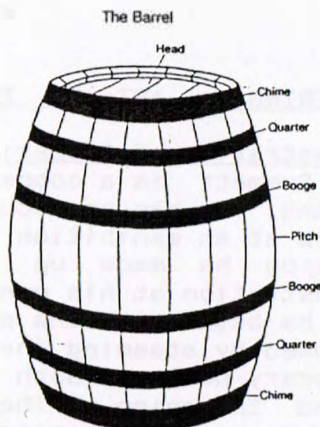
- \* Menai Oak was the favoured timber for casks.
- \* Hoops were once made of wood and hoop-making was a specialist trade associated with coopering.
- \* Flag is the hollow reed used between the pieces of the head or end of a cask to help to seal it effectively.
- \* Barrel making goes back to Biblical times.
- \* Casks come in standard sizes.

Butt - Holds 108 gallons  
 Puncheon - Holds 72 gallons  
 Hogshead - Holds 54 gallons  
 Barrel - Holds 36 gallons  
 Kilderkin - Holds 18 gallons  
 Firkin - Holds 9 gallons  
 Pin - Holds 4 1/2 gallons

- \* The general name for all these is "casks" not "barrels".



*The cask after it has been raised up, ready for staving.*



A section through a Head

## THE NOBLE ART OF COOPERAGE

(Reference: Encyclopaedia Britannica, Ninth Edition 1898, p 338)

COOPERAGE, the art of making casks, barrels and other rounded vessels, the side of which are composed of separate staves, held together by hoops surrounding them. The art is one of great antiquity, being mentioned by Pliny who ascribes its invention to the inhabitants of the Alpine valleys. The cask or barrel form is at once the strongest, tightest, and most convenient form into which wood can be fashioned as a vessel for storing either liquid or solid substances, and the manufacture has attained great precision and perfection. The trade is one in which there are numerous subdivisions, the chief of which are tight or wet and dry or slack cask manufacture. To these may be added white cooperage, a department which embraces the construction of wooden tubs, pails, churns, and other even staved vessels. Of all departments, the manufacture of tight casks or barrels for holding liquids is that which demands the greatest care, experience, and skill; as, in addition to perfect tightness when filled with liquid, the vessels must bear the strain of transportation to great distances, and in many cases they have to resist considerable internal pressure when they contain fermenting liquors. Cooperage is still most commonly pursued as a handicraft with the tools and appliances which have been employed from the earliest times; but many expedients of the greatest ingenuity and efficiency have been introduced for performing the numerous operations by mechanical means. Tight casks are generally made of well-seasoned oak of the best quality, free from twists and warping. Whether accomplished by hand or machinery the following are the essential operations. 1st, The preparation of the staves is the most important and difficult task the cooper, inasmuch as a cask being a double conoid having its greatest diameter (technically the bulge or belly in its centre, each stave must be accurately curved to form a segment of the whole. The taper from the centre to the extremities must be curved; in cross section it must be double concave, and the joints, or edges, must be so bevelled that when bent into position they shall form a true plane through the central axis of the vessel. 2d, Trussing consists of setting the separate staves, properly bevelled and jointed, upright in a frame in order to receive trusting hoops at both ends, which serve to keep them together for the permanent hooping. The lower ends of the staves are set together in a frame and a hoop passed round them.

A rope is then carried round the upper part and gradually tightened till the joints are brought quite close, when a hoop is dropped over and the rope removed. 3d, Chiming and crozing consists in finishing the two ends for receiving the heads. The chime is the bevel formed on the extremity of the staves, and the croze consists of the groove into which the ends or heads fit. 4th, Hooping, and 5th Preparing heads or ends, are the other operations to be noticed. For wet casks hoops are generally made of iron, although wooden hoops also are employed. The heads, when made of two or more pieces, are jointed by means of dowel pins, and after being cut to the proper size they are chamfered or bevelled at the edges to fit into the croze groove.

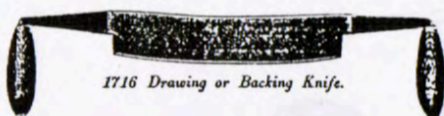
The quantity of tight casks required in certain industries is incalculable. On the continent of Europe they are in most extensive demand in the wine-producing districts. In Great Britain, brewers and distillers must have enormous stocks, and both in Great Britain and in the United States the mineral oil and petroleum trade employ vast quantities. Slack barrels are almost as extensively employed in connection with chemical industries and the fruit and fish trades. In America slack barrels are the form most generally adopted for packing almost all kinds of dry goods for storing and transport, and the flour, rosin, fruit and other products sent to Europe are almost invariably enclosed in such vessels.



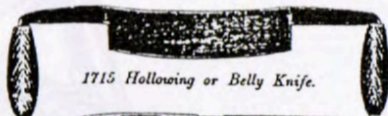
*Small household vessels made by the village cooper.*



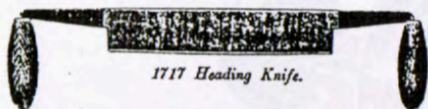
COOPERS' TOOLS (Continued)



1716 Drawing or Backing Knife.



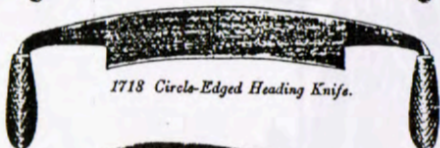
1715 Hollowing or Belly Knife.



1717 Heading Knife.



1721 Hand Knife.



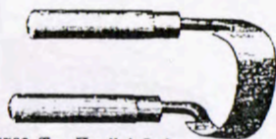
1718 Circle-Edged Heading Knife.



1720 Splitting Knife or Froe.



1719 Crum Knife or Jigger.



1723 Two-Handled Inshave.



1724 Scillop, or Bung-Hole Borer, with Eye.



1722 One-Handled Inshave.



1727 Improved Bung Hole Cutter



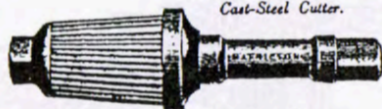
1725 Cylindrical Bung-Hole Borer, with Auger Point.



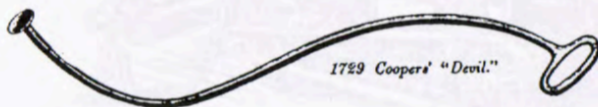
1726 Cylindrical Bung-Hole Borer or Scillop, with Adjustable Cast-Steel Cutter.



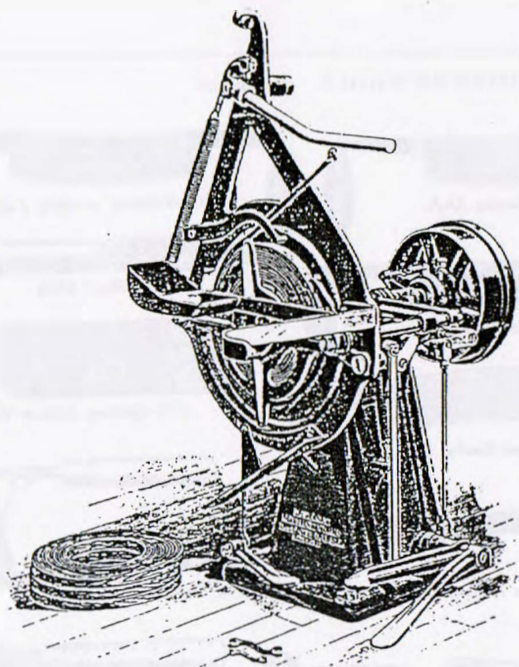
1728 Bushing Scillop.



1730 Fixing Key.

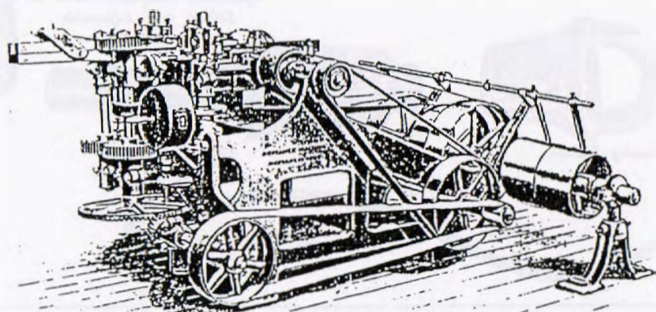


1729 Coopers' "Devil."



No. 1 Patent Hoop Coiling Machine.

THIS ENGRAVING represents our No. 2 Hand-Feed Patent Hoop Lapping Machine, especially designed for lapping the ends of coiled barrel and keg hoops, preparing them for the coiling Machine. It is capable of lapping from 15,000 to 18,000 hoops in ten hours.



Kettenring's Patent Automatic Sawed Hoop Machine.

THE KETTENRING PATENT AUTOMATIC HOOP MACHINE, as shown by the engraving, is used for making sawed hoops for barrels and kegs. It will produce standard shapes with one thick and one thin edge, or plane equal thickness at both edges, or any other shape can be made, and it is not limited to any particular length of work or size of hoops.

THIS MACHINE is automatic in its movements, simple in adjustment, and