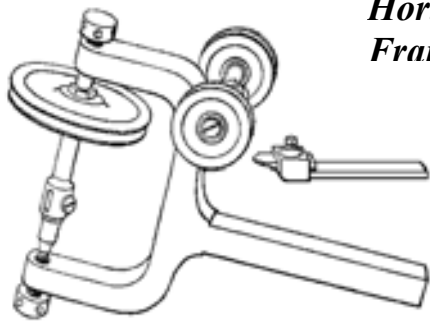


## THE ORNAMENTAL CUTTING FRAMES

A series of frames to hold flying cutters which describe different movements, such as: gashing cuts at any angle, routing cuts for flutes and mouldings, planing cuts and circular, elliptical and epicycloidal cuts. The cutting heads or spindles are driven over pulleys by a thin round belt from the overhead.



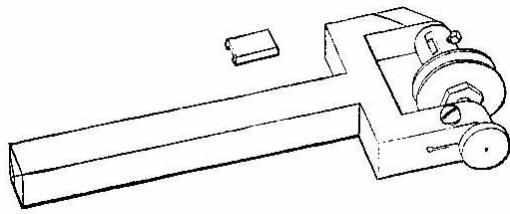
*Horizontal Cutting Frame*



**The Horizontal Cutting Frame** is used with a single point cutter or occasionally with a small horizontal milling cutter. Individual plunge cuts may be taken at regular intervals to create a variety of patterns or, continuous swathes cut to produce curved areas. Long or short cutters may be used for large or small radius cuts.

The patterns on these boxes were cut with the Horizontal Cutting Frame; one using a round-nosed cutter and the other a point tool.



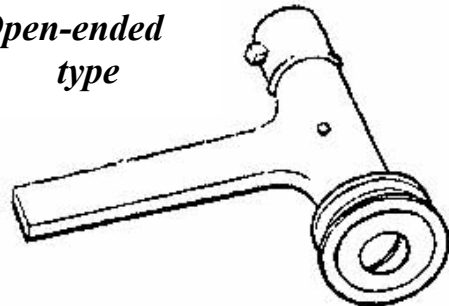


***Vertical Cutting Frame***



**The Vertical Cutting Frame** rotates in the vertical plane so cutting a vertical slash, groove or flute and it is used with a single point cutter cutting vertically upwards; the inconvenience of throwing wood shavings into the face of the operator is preferable to the real risk that cutting downwards can loosen the chuck on the spindle nose thread and spoil the work. The closed-end type runs very efficiently on point bearings but the open-ended type is more versatile as it can take a longer cutter for those times

***Open-ended type***



when a large radius concave cut is required.

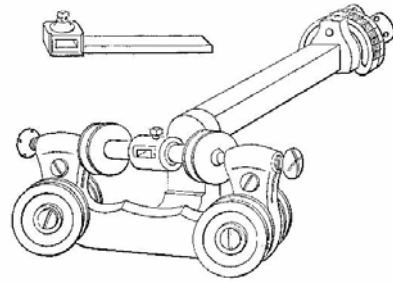
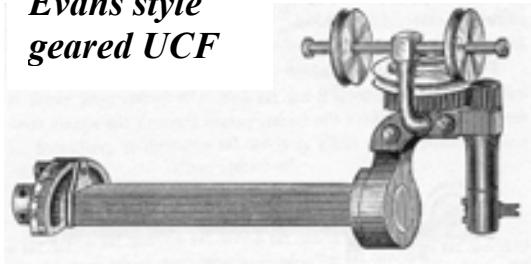
Here a bamboo pattern is being cut vertically on the main component of a Wassail Bowl; the wide flutes were also cut vertically.



The **Universal Cutting Frame** is used in exactly the same way as the Vertical and Horizontal Cutting Frames except that the cutting head may be adjusted to cut at any angle between the horizontal and the vertical. The enclosed type has the disadvantage that the pulleys may foul the work if it is required to cut up close to a shoulder.

The **Geared Universal Cutting Frame** has the advantage that the cutter may go very close to the work surface as the drive pulleys do not obstruct it, thus allowing a very small radius cutter to be used.

*Evans style geared UCF*



The Birch style Universal Cutting Frame uses bevel gears to transmit the drive and the more modern type uses a continuous loop driving band.

*Holtzapffel style*



*modern type*



*Birch geared type*



Here are some Perspex wine coasters with patterns cut by the Universal Cutting Frame.

