Attention must be paid to the following particulars in using the Instrument for cutting transverse slices of wood for Microscopical Observations.

The wood to be cutt must be made perfectly clean, and if the Bark be any how rough or ragged it must be well washed with a soft brush in plenty of water; Otherwise it will impair the edge of the Cutter.

If the wood to be cutt is not fresh from the tree it must be moistened with Spirits, the application of which must be repeated to the end of the wood so often as it appears dry.

In cutting the wood of a proper length for the instrument, great care must be taken that its ends be not split or any how lacerated; Otherwise the slices cut from it will be very imperfect, altho the instrument be in good order.

The lower, as well as the upper end of the wood, must be made perfectly flat, that it may rest solidly on the piece of ivory which raises it towards the cutter: Otherwise it will move by jerks and render many of the slices imperfect.

In flatning the end of the wood, the slices taken off must not exceed the 500 of an inch, least the Edge should be hurt by their too great thickness.

When the wood is taken out of the Instrument, the small spring which serves to keep the slices from curling up must be made to rest on the extream part of the instrument: for if it be left within reach of the cutter, it will infallibly spoil its edge.

After using the instrument, the Cutter ought always to be taken off and swept perfectly clean, and the wood taken out of the instrument; for if the wood be left in contact with the Cutter its acid juices will corrode the edge so as to render it unfitt for further use.

In using the instrument which shifts its own divisions, the screws which confine the wood to its place must neither be too tight, or too loose: it is sufficient that the screws press gently against the wood, And if the index (on the Bottom of the instrument) which moves concentric to the feeding screw, describes spaces corresponding to the Number pointed by the regulating index, the instrument is properly adjusted.

The feeding screw, will by much using the Instrument work out of its place & cease to move the wood towards the cutter: this is rectified by turning the Handle till the point of the cutter rests exactly over the aperture in which the wood is fitted, then by turning the small key with the milled head (at bottom of the instrument) to the left, the screw will again be brought towards the bottom, & be fitt to perform its office for several hundred slices:

After the above operation, it always becomes necessary to put a longer piece of ivory under the wood to bring it within reach of the cutter.

Mugel.