Reproducing a piece of furniture from a catalogue photograph

The brief;

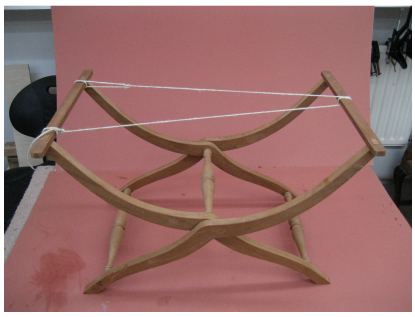
The purpose of this exercise was to reproduce a coaching table chosen from the Arthur Brett catalogue and build the item as a department for the West Dean College 2007 Christmas party furniture department raffle prize.

We begun with a limited amount of timber and a large amount of artistic licence to alter or improve the design.

A quantity of mahogany that was formerly a counter top) was machined to approximate size, and the various screw holes drilled out and plugged using a plug cutter.

A 1:1 scale drawing was produced on a piece of MDF; two elevations were drawn to shown all of the constructional details necessary to construct the piece from the photograph and the 3 dimensions shown in the catalogue.

Steel rules were bent around nails driven into the board to achieve a good even shape for the legs - these were then drawn around once the desired curve had been reached. The turnings were drawn separately and it was decided to finalise the fittings once the table had been shown to work geometrically.



From this drawing cardboard templates were made, used to band saw out the legs and chop in the tenons at the top. The spindles were turned on the lathe and the whole thing was loose assembled.

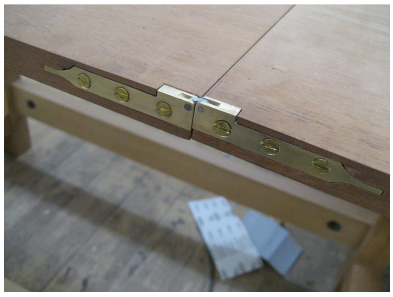
Once the geometry had been shown to work brass washer were fabricated to prevent the legs rubbing together. the base was sanded and a scratch stock was used to round off the outsides of the leg.

In order to be sure the table would sit level extra waste had been allowed at the base of the legs. A jig was made to allow measurement of the 4 corners and blocks used underneath to level the top plane.

Engineers dividers were used to scribe the legs before the final trimming using jewellers back saw.

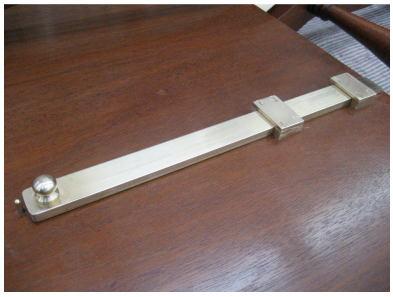
The brass feet were levelled and finished after cross pinning as shown on the drawing. The pilot holes for the pins were countersunk and the head of the pins peened with a ball-pein hammer before being finished with an engineers bearing scraper.

The top was planed and scraped, and a thumbnail tongue and groove joint planed along the central join.

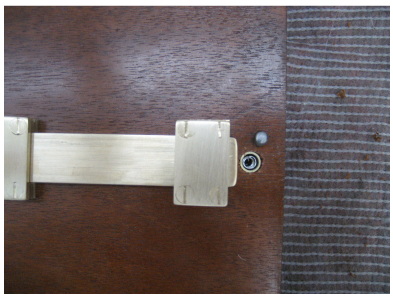


The hinges were fabricated from scratch using brass bar. The link piece is made from mild steel with steel pins peened into place at the pivot points. Brass stringing and brass arrowheads and flights were let into the sides of the top as a decorative feature at this point.

The whole piece was then fine sanded, the grain was raised, sanded, stained using Bi-Chromate of Potash and water stain to attain a good colour. The table was polished for 3 days using a rubber in the traditional manner however no oil was needed during the bodying up stage as each component was so small.



After assembling with fish glue a shoot bolt and keep was fabricated from brass stock, the knob was turned on the lathe, left with a spigot and peened in from behind. A stop was let into the timber to keep the bolt captive.



A small bearing catch was fabricated using steel rod, brass tube and a spring from a biro, all let into a 12mm deep recess. The underside of the bolt has a recess to receive the domed head of the steel bar - giving a positive stop that keeps the bolt in place when not in use.

Three domed pegs were turned from brass and some flat stock was cut with a piercing saw and used to form a small catch for holding the table in the closed position.

The finished table