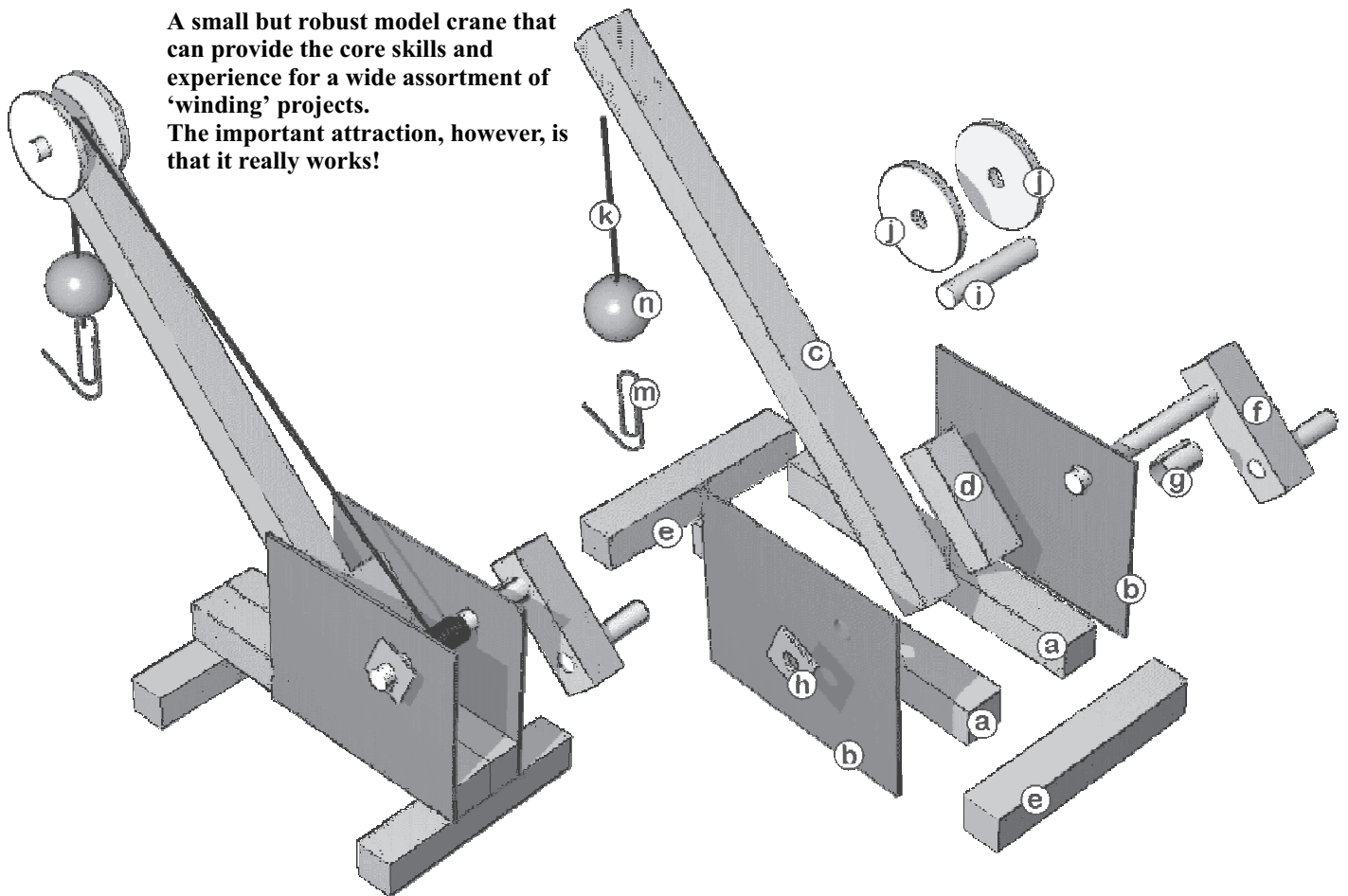


A small but robust model crane that can provide the core skills and experience for a wide assortment of 'winding' projects. The important attraction, however, is that it really works!



- Cut the 2 pieces of wood (a) and glue them together to form base.
- Punch a 5mm hole in the card sides (b) near, but not too near, a corner as shown. Punch them together so that the holes are in the same position on both cards.
- Glue the sides to the base assembly. Line up the edges of the cards nearest the hole with one end of the base. Put something through the holes to keep them in line.
- Build the jib, (c+d) - it should look a little like a wooden toothbrush, and glue between sides at about 45°. (Opposite end to holes).
- Build crank, fit in holes and make top 'pulley' from card discs and dowel. Fit to top of jib. (Note that the pulley doesn't rotate - it is just a smoother surface for the thread to slide over.)
- Tie (or tape) thread to crank between sides. Thread over top pulley and tie a paperclip hook to the end.
- The hook will wind up easily but friction will prevent it winding down again unless it is weighted. Either make a little load to fit on the hook, or weight the thread just above the hook. You could use a small ball of modelling clay or, better still, a wooden bead threaded above the hook. The illustration above shows a wooden bead.
- The final job is to fit the stabilisers - or feet. If you fit these last you can put the finished model straight on the window sill and leave to dry. You could fit the feet earlier, but they are then easily dislodged if you carry on working without allowing the glue to set.

- (a) (2) base - wood 9cm
- (b) (2) sides - stiff card 6 x 5cm
- (c) (1) jib - wood 15cm
- (d) (1) spacer - wood 3cm
- (e) (2) feet - wood 6cm
- (f) (1) crank (see Pg.31)
- (g) (1) spacer - straw
- (h) (1) card 'stopper'
- (i) (1) 'pulley' - dowel 2½cm
- (j) (2) ' - card disc 25mm dia.
- (k) thread
- (m) (1) large paper clip
- (n) (1) bead or plasticene

There is an even simpler version of this crane earlier in the book. By all means look back at that worksheet and see if you would like to use any of the more basic features to incorporate into your crane.

An obvious choice might be to use a bent paper stick for a crank. Perhaps not as smart, but it avoids a lot of drilling.