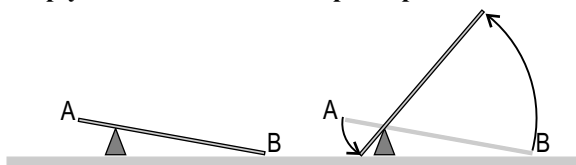


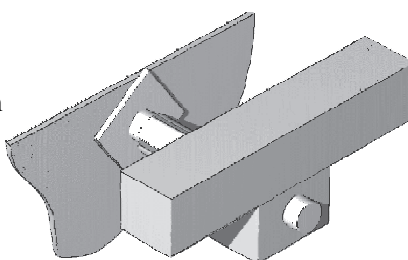
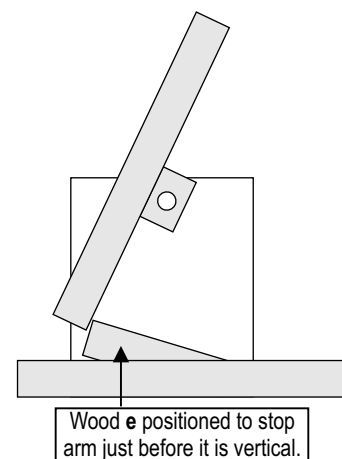
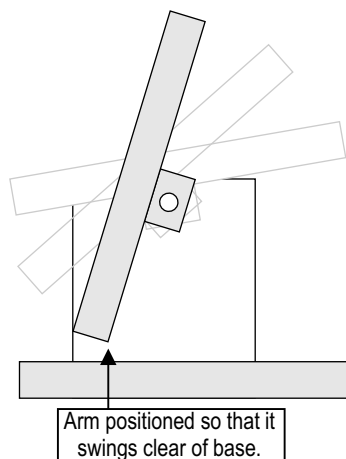
This is a simple version of a siege engine, used to throw stones etc., at or over castle walls. Pull the string and anything placed on the platform is lobbed into the air.

It is, of course, a lever. Used like this the lever doesn't multiply force: instead it multiplies speed.



- Assemble the frame using four pieces of wood: two pieces (a) + 1 piece (b) + 1 piece (c)
- Cut two card sides (d) and punch a 6mm hole near top centre.
- Glue to frame. Use dowel to line up holes.
- THROWING ARM
- Glue cane to wood (a). Use tape to hold while glue sets.
- Glue drilled block to underside of arm. This is best done by pushing dowel through the block and positioning between the sides. Glue the block to the arm so that the arm can swing over without the end touching the base. Leave to set.
- Push dowel (f) into the hole in the frame and glue card to the top. Make sure that the arm rests level.
- Glue card square (j) to end of cane. This is where the projectile is placed for firing.
- When everything is set, push the wood (e) into the gap in the frame and position it so that it stops the arm swinging just before the arm becomes vertical. Adjust, then glue.
- Fasten a length of string or thread to the end of the arm using a drawing pin. Tie a loop in the other end of the thread..
- Pull the string sharply to throw the projectile. The dowel prop will act as a simple pulley, allowing you to operate the trebuchet from the side.

(a) (3) wood 10cm	(g) (1) dowel 7cm
(b) (1) wood 1 to 2cm	(h) (1) cane 25cm
(c) (2) wood 1 to 2cm (drilled)	(i) (1) drawing pin
(d) (2) stiff card 6 x 5cm	(j) (1) card 4 x 4cm
(e) (1) wood 4cm	(k) (1) card 3 x 3cm
(f) (1) dowel 5cm	(1) string 30cm



The throwing arm can move from side to side between the cards. This can be prevented by putting straw spacers on the dowel pivot. Unfortunately, the straw will slip through the 6mm hole, so you will need a card washer (with a smaller hole) placed as shown in the diagram. You could place other washers on the ends of the dowel as stoppers..