Toy boats

Tug

Mark off bow of tug on 8 × 2⅜ × ⅜ in. softwood. Set compasses at 1½ in. Place point 1½ in. from end and ⅞ in. from side. Scribe arc from opposite side to end. Repeat on other side. Cut bow to shape.

Round off stern to 1 13/16 in. radius. Bevel sides of hull to ⅛ in. all round.

Cut 1½ in. long wedge from 2⅜ × ⅜ in. softwood. Glue it to bow deck. Cut wedge to curves of bow and bevel edges to ⅛ in.

Glue 1¾ × 1½ × 1¼ in. block across deck, 2¼ in. from bow, to form wheelhouse.

Glue 2¼ × 1¾ in. strip of ⅛ in. hardboard to deck behind wheelhouse. Glue 1¾ × 1 × ⅜ in. block behind wheelhouse to form engine room. Drill ½ in. dia. hole at 10° in engine room block and glue in 1¾ in. long dowel for funnel.

Drill hole in deck at stern to take cut-off clout nail. Glue nail in hole with head projecting ⅛ in. Finish tug as in illustration, with lead-free paint.

Barge

Cut 8 × 1⅞ × ⅜ in. softwood strip. Mark off bow and stern as for bow of barge, but with compasses set at 1¼ in. Cut bow and stern to shape. Bevel sides of hull to ⅛ in. all round.

Glue cut-off clout nails in holes at bow and stern as for tug.

Cut two 3 × 1½ × ¼ in. plywood blocks. Drive staples into blocks, ¼ in. from each end. Finish with lead-free paint.

Crane

Cut 5 × 1 in. sides from ⅛ in. plywood. Glue two 1 × ⅞ × ⅞ in. softwood blocks between sides, flush at top and bottom.

Cut 8 × 1 in. jib from ¼ in. plywood. Cut halving joint in jib, 4½ in. from end, and in top block (fig. 1). Taper lower edges of jib from sides of joint to ½ in. at ends. Round off ends to ¼ in. radius. Glue halving joint.

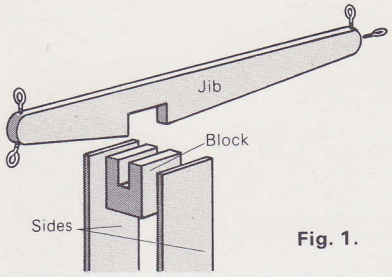


Fig. 1.

Glue ¾ in. dia. cardboard disc to each end of 1 × ½ in. dia. dowel. Drill 3/16 in. dia. hole through centre of dowel.

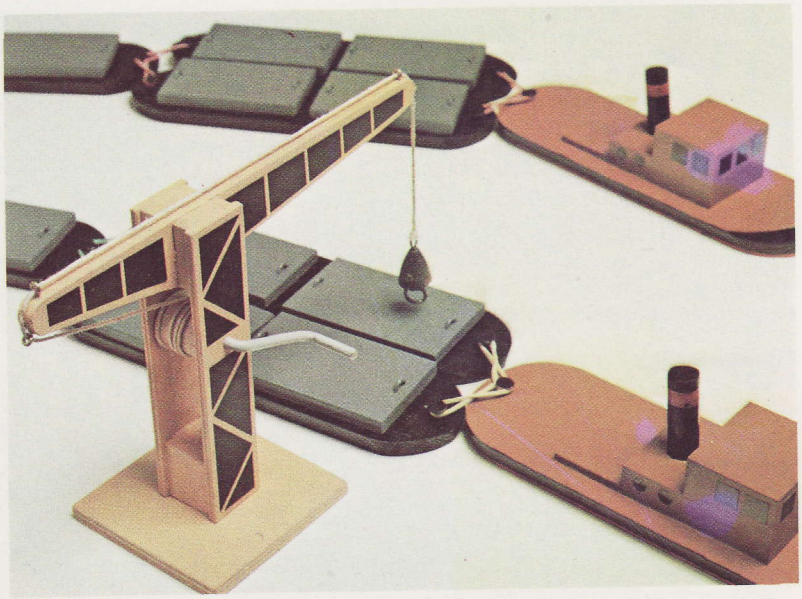
Bend crankhandle from No. 7 metal knitting needle. Drill 3/16 in. dia. hole through sides, 2 in. from top. Pass crankhandle through holes and dowel. Glue crankhandle into dowel.

Screw 4 × 4 × ¼ in. plywood base to bottom block. Fit screw eyes to each end of jib so twine can run smoothly. Paint girders on sides and jib.

Tie twine tightly to dowel. Pass other end through screw eyes and tie to fishing sinker. Fit screw hook to sinker.

Designer: David J. Day

Use up scrap softwood, plywood and hardboard by making this fleet of tugs and barges.



The blocks resting on the barges can be lifted on and off by the crane.