

# Project 19272EZ: Kangaroo Pull Toy

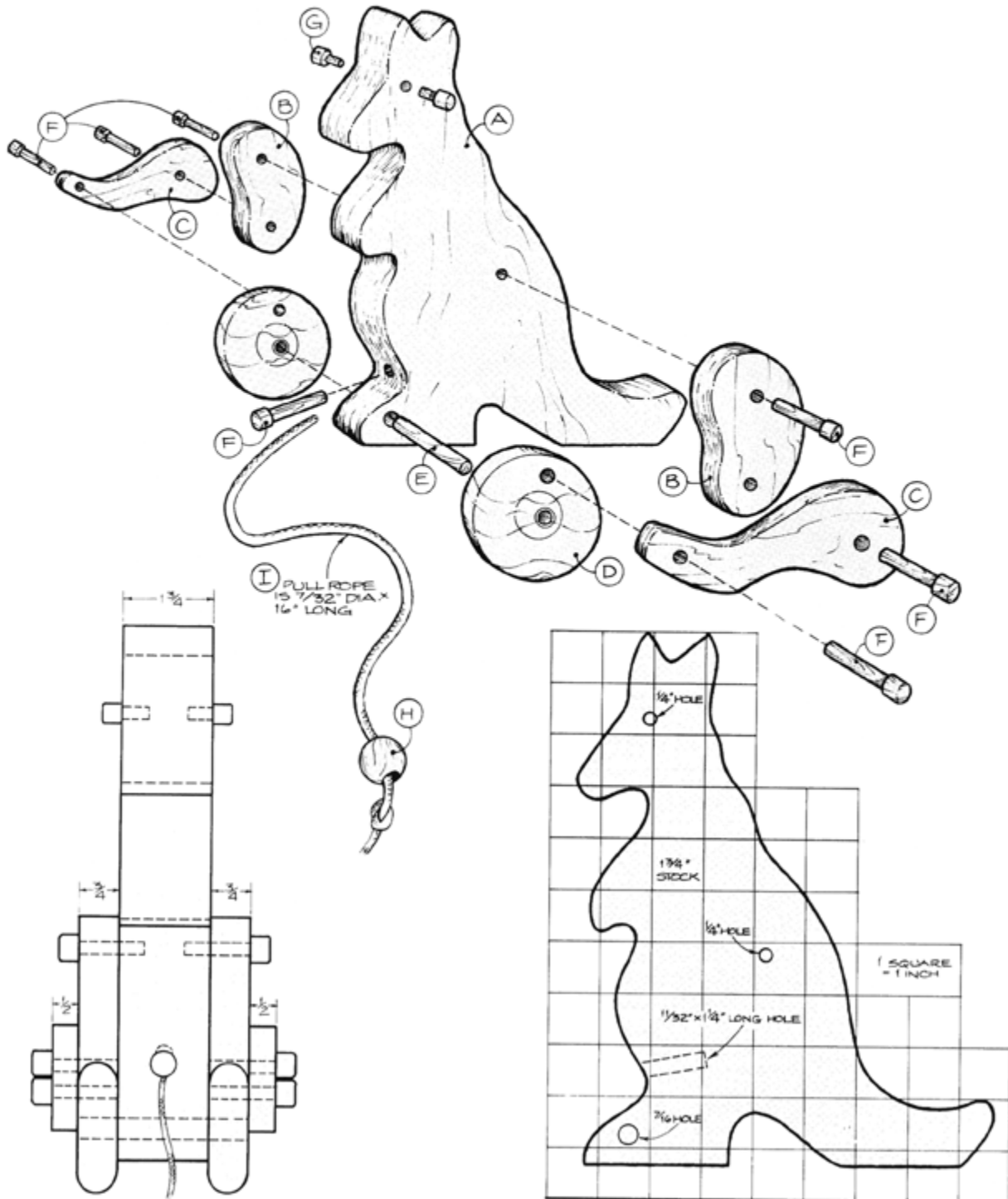
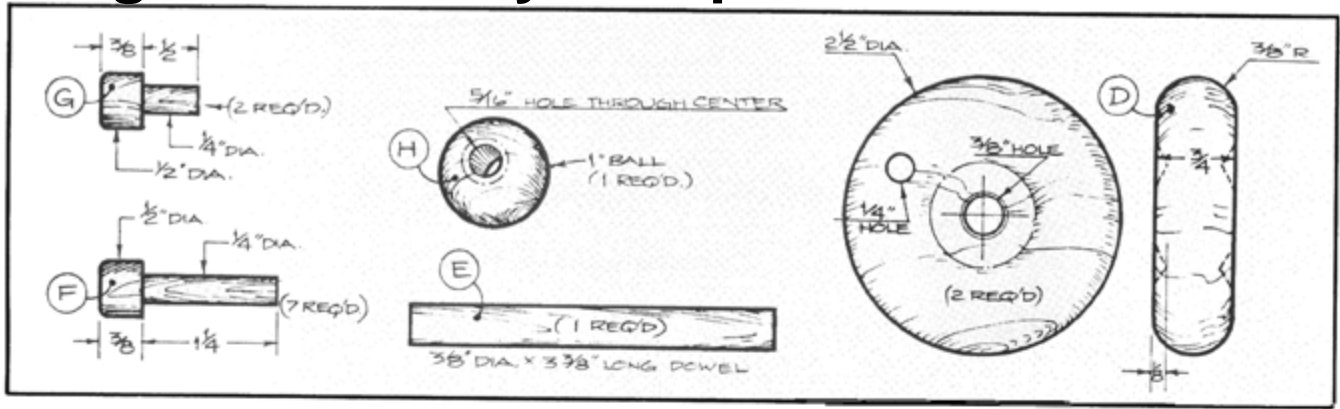
*This sturdy wooden kangaroo pull toy should be a big hit with 1-3 year olds. The simple wheel/leg/thigh linkage produces an interesting animation as the kangaroo is pulled along - a sure delight for the little ones. Our kangaroo is crafted in cherry, a close-grained, durable hardwood ideal for toys, which typically must withstand considerable abuse.*

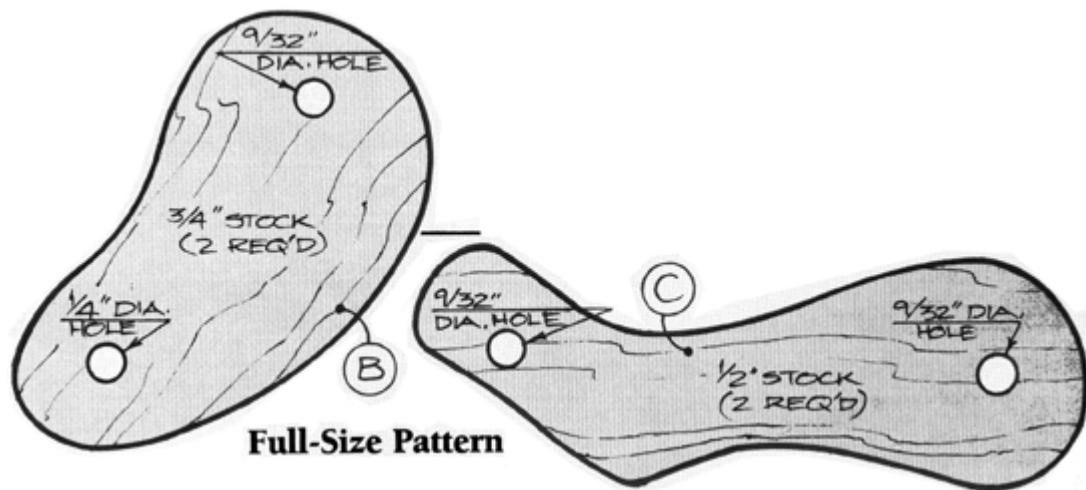


## Kangaroo Pull Toy Materials List

Part	Description	Size	No. Req'd
A	Body	1-3/4" x 8-1/8" x 10-3/8" (see grid)	1
B	Thigh	3/4" x 2" x 3-9/16" (see pattern)	2
C	Leg	1/2" x 1-3/4" x 4-3/4" (see pattern)	2
D	Wheel	2-1/2" dia. x 3/4" thick	2
E	Axle	3/8" dia. x 3-3/8" long dowel	1
F	Long Peg	See detail.	7
G	Short Peg	See detail.	2
H	Ball	1" dia.	1
I	Pull Rope	7/32" dia. x 16" long	1

# Kangaroo Pull Toy Complete Schematic





## Kangaroo Pull Toy Step-by-Step Instructions

1. Select a 1-3/4" thick x 8-1/2" x 10-1/2" long section of board, which will provide sufficient stock for the body (A), thighs (B), and legs (C).
2. Refer to the grid pattern and transfer the profile of the kangaroo body to the stock.
3. Lay out the profile of one thigh and one leg next to the kangaroo body.
4. Use a narrow blade the band or saber saw and cut out the body, thigh, and leg profiles.
5. Resaw, then hand plane, then sand the leg to obtain two 1/2" thick leg pieces.
6. Resaw then hand plane, then sand the thigh to obtain two 3/4" thick thigh pieces.
7. Locate the various holes in the body, thighs, legs, and wheels, using the illustrated patterns as a guide.
8. **NOTE**, before drilling the holes, that:
  - The axle hole in the body is 7/16" diameter to permit free movement of the 3/8" diameter axle shaft.
  - Both holes in the legs and the uppermost hole in the thighs are 9/32" in diameter to permit free movement around the 3/8" diameter pegs.
  - The additional diameter of the cord mounting hole is required to accommodate both the cord and the peg.
9. Use the drill press to drill the holes.
10. Make the various small parts, including the wheels (D), axle (E), pegs (F and G), ball (H) and pull rope (I) as shown.
11. Final sand all parts.
12. Insert the axle.
13. Mount the wheels.

14. Add the thighs and legs, taking care not to get excess glue on any of the peg shanks where the various parts must pivot.
15. Mount the eye pegs.
16. Force the end of the pull cord into the cord hole using a long peg and a dab of glue.
17. Make a knot on the other end of the cord to secure the wooden ball.
18. Leave unfinished.

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These plans were originally published in Volume 11, Issue 2 of *The Woodworker's Journal* (Mar./Apr. 1987, pages 46-47).