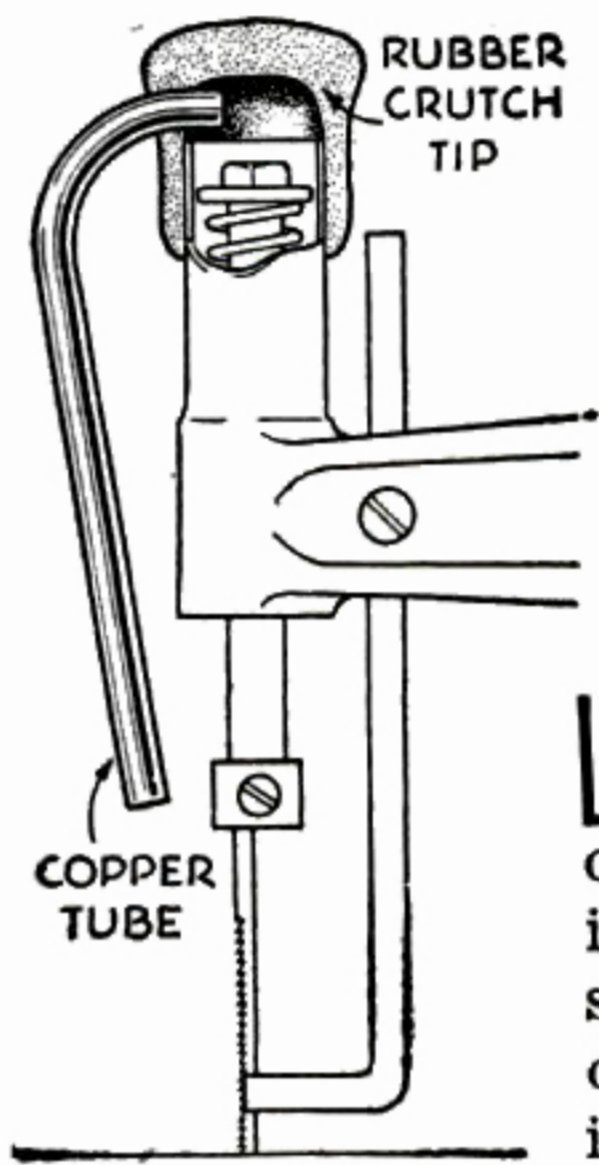


Full-size dimensions in feet are given for convenience in working to any desired scale



## Building a Coal Chute for a Model Railway

NO ENGINE yard of a model railway layout is quite complete without a coal chute. The foundation of this model is built up of wood blocks. The walls are cut from Bristol board or heavy cardboard and erected with small pieces of wood cemented inside the corners for strength. The roof is made in the same manner. The two chutes are thin metal, bent to shape and soldered. The track for the delivery of coal is 3' to scale higher than the other tracks and runs over a concrete pit inside the building. The building is painted black, and the roof to represent tar paper, while the foundation should be the color of concrete. Mount a flood light on a tall pole nearby.—**HAROLD A. SCHUPP.**

## Sawdust Blower Added to a Jig Saw

LOW-PRICED jig saws are seldom equipped with built-in sawdust blowers, but a good one can be assembled as at the left. Select a rubber crutch or chair-leg tip that will fit snugly over the pipe which incloses the spring in the head of the machine. Drill a hole in the rubber as shown, slightly smaller than the outside measurement of a piece of old automobile fuel line or any available copper tubing. Bend the tube to shape and insert one end into the hole. Now slip the blower over the pipe head.—**LECIL J. SLABACK.**

## PULLEY SPEEDS AND SIZES

[CALCULATIONS]

When power is transmitted from one shaft to another by means of pulleys and a belt, the diameter of the driving pulley multiplied by its speed equals the diameter of the driven pulley multiplied by its speed. Therefore, if three of these factors are known, the fourth can easily be determined.

To Find	Having	Rule
Speed of driven pulley	Diameter of driving pulley, diameter of driven pulley, speed of driving pulley	Multiply diameter of driving pulley by its speed and divide by diameter of driven pulley
Diameter of driven pulley	Diameter of driving pulley, speed of driving pulley, speed of driven pulley	Multiply diameter of driving pulley by its speed and divide by speed of driven pulley
Speed of driving pulley	Diameter of driving pulley, diameter of driven pulley, speed of driven pulley	Multiply diameter of driven pulley by its speed and divide by diameter of driving pulley
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POPULAR SCIENCE MONTHLY SHOP DATA FILE

