

# WOODWORKER'S JOURNAL

"America's leading woodworking authority"™

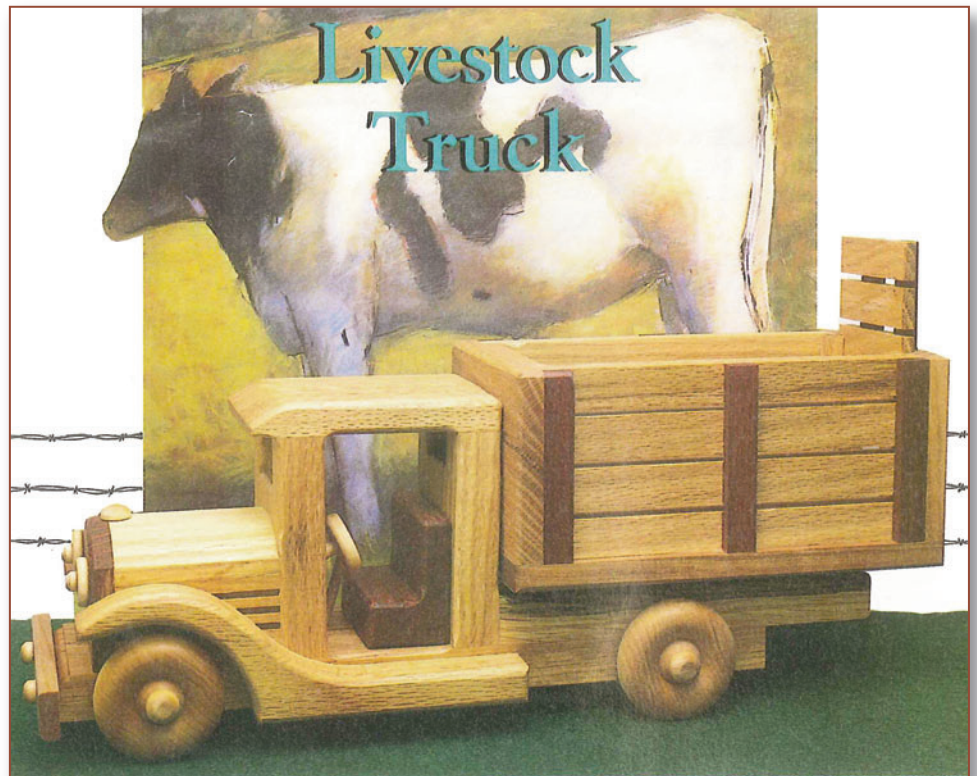


## Classic Project

### In this plan you'll find:

- Step-by-step construction instruction.
- A complete bill of materials.
- Construction drawings and related photos.
- Tips to help you complete the project and become a better woodworker.

## Toy Livestock Truck



Published in *Woodworker's Journal* November/December 1992



To download these plans, you will need **Adobe Reader** installed on your computer. If you want to get a free copy, visit: <http://adobe.com/reader>.

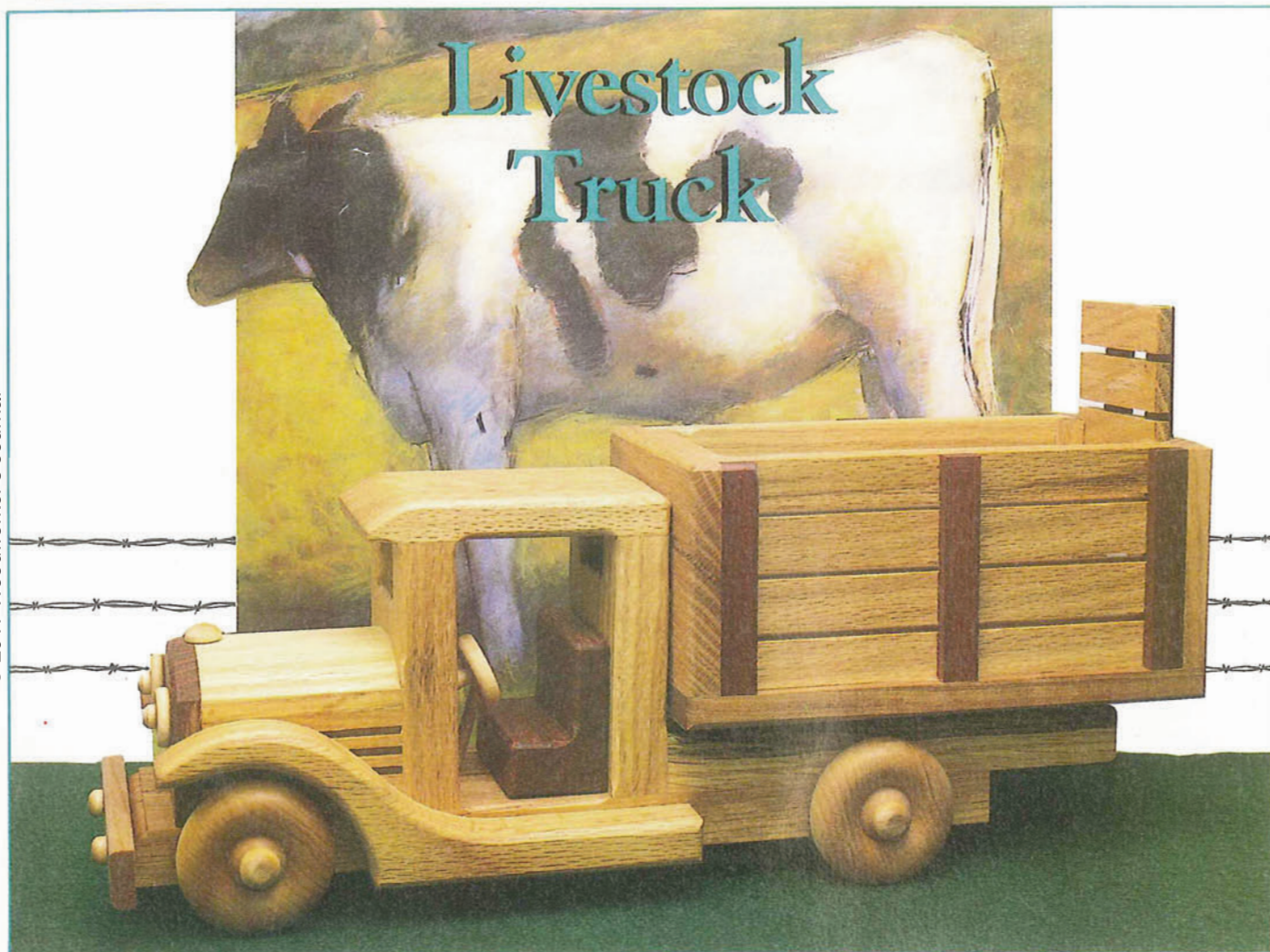
### Having trouble downloading the plans?

Right click on the download link and select "Save Target As..." or "Save Link As..." (depending on the web browser you are using) to download to your local drive.

Copyright *Woodworker's Journal* © 2011  
This pattern is copyrighted by *Woodworker's Journal*.  
Purchasers of this plan may make three copies for personal use in the shop. The pattern itself, however, is the property of *Woodworker's Journal* and is not to be reproduced for distribution or resale. Doing so, including via any electronic methods, is a violation of copyright law.

[www.woodworkersjournal.com](http://www.woodworkersjournal.com)

**\$1.00**  
WJC143



If you are a parent or grandparent, then you know that one of the real pleasures in raising children is in sharing their delight at receiving a special gift. This Livestock Truck, from the Kansas workshop of Fred Cairns and Kathy Dawson, is one toy that's sure to have the little ones wide-eyed once they spy it beneath the Christmas tree.

Truck is made primarily from oak, with a few parts made from a contrasting wood (padauk). If you don't have any padauk, walnut will yield much the same contrast. But don't feel restricted to these wood choices. Almost any combination of hardwoods or even pine (though it's softer and won't stand up as well to abuse) will be fine.

When building this project (especially if this is your first toy), keep in mind that the entire assembly is basically just a series of blocks, with wheels, pegs, and a few shaped parts for detail. There's no real joinery here, since all the parts are just glued to each other. To simplify the construction of the truck, we've divided the project into two sections, the cab/chassis assembly and the livestock box.

#### The Cab/Chassis

The easiest way to put the cab/chassis together is to consider the assembly as

actually a combination of several subassemblies. Begin by cutting the parts to length and width. Once the chassis (A), hood (B), lower hood (C), grill (D), cab front/back (E), roof (F), seat parts (G, H) and bed (I) have been cut to overall length and width, you can start making the first subassembly—the hood, lower hood and grill. Use the table saw to establish the  $\frac{1}{8}$  in. deep by  $\frac{1}{8}$  in. wide louver kerfs in the lower hood, then glue the hood and grill blocks to the lower hood. Scribe a  $2\frac{1}{2}$  in. radius line to lay out the hood curve, then cut that curve with a band saw, sand smooth, and round the top and side edges of the grill front. Next, use a  $\frac{3}{16}$  in. radius round-over bit in the router table to establish the stepped roundover detail on the front top end of the chassis.

Mount the hood/lower hood/grill subassembly to the chassis, locating it  $\frac{1}{2}$  in. back from the front end of the chassis,

As the photo shows, the Livestock

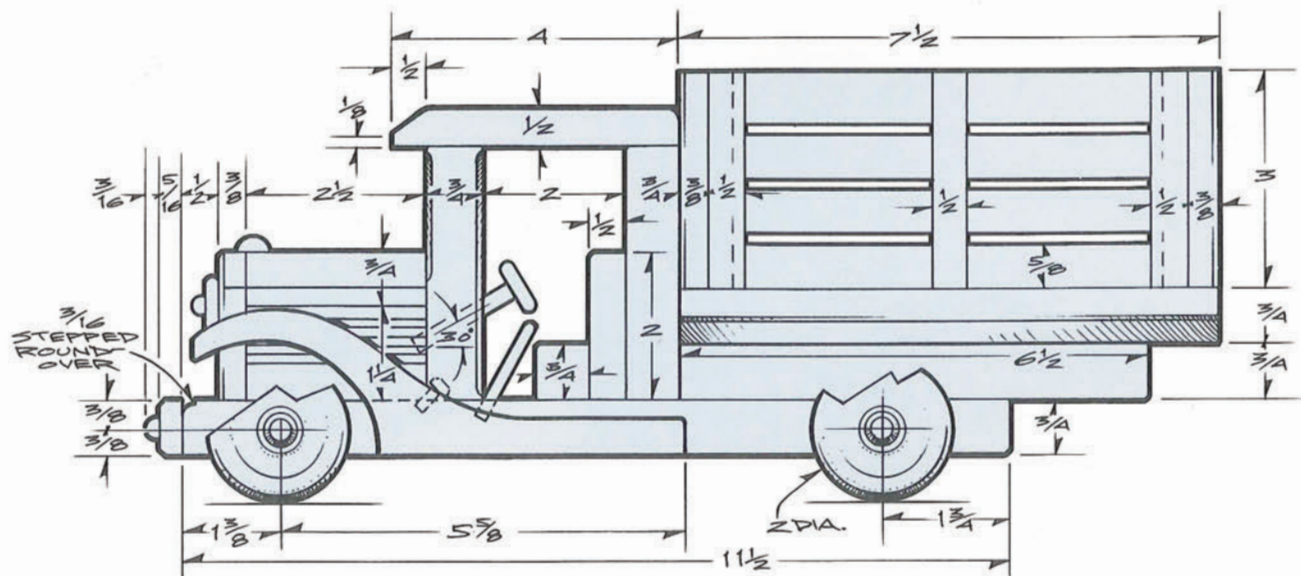
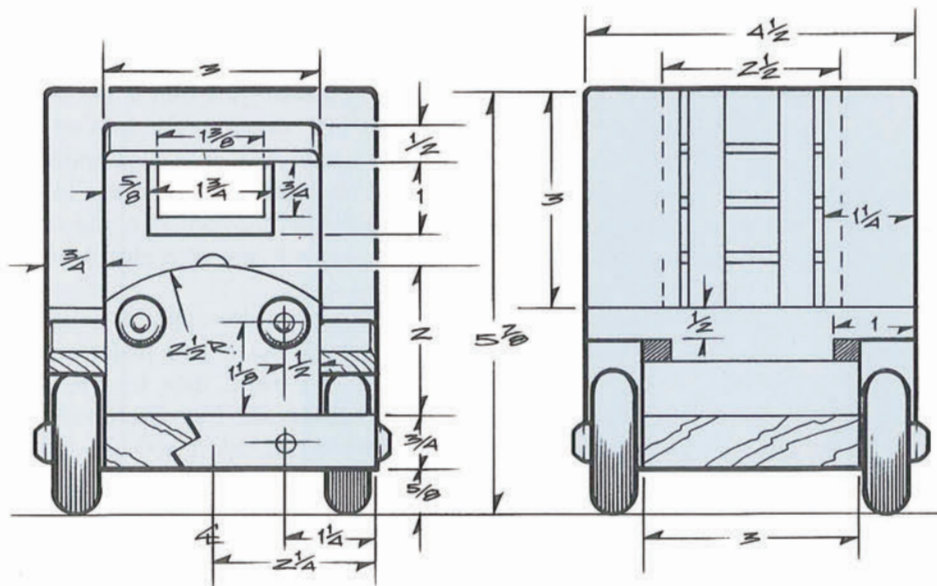
then drill the holes for the various controls inside the cab—the steering column (L), gear shift (M), and pedal pegs (Y). The Cab Detail shows the placement of these parts. Mount the medium wheel (U) that serves as the steering wheel to the steering column, then glue the column, the gear shift and the pedal pegs into their respective holes. We recommend mounting these parts now, before the cab front/back and roof are added, since access inside the cab is more difficult later.

Make the various cutouts in the cab front and back. As the exploded view shows, there's a windshield and control area cutout in the cab front, and a window cutout in the cab back. The front and rear elevations, and the Cab Detail, show the dimensions of the cutouts.

Test assemble the cab parts. If everything looks fine, glue the cab front/back

and roof to the chassis, then add the bed. Next, mount the seat to the seat back, and glue this subassembly to the chassis. Don't be overly concerned with getting all the cab parts to register perfectly flush with the chassis. As shown in the Sanding Detail, once the glue has dried you can use the disk sander to flush the sides. This step is an important one, since the sides must be flat for the fenders to have an even surface on which to mount.

Next, using a drill press (or a hand drill) establish the axle peg holes. Your parts kit will include five large pegs (W)—four are used to mount the four large wheels (T), the fifth is cut short and serves as the radiator cap. Mount the wheels, taking care not to press the axle pegs in too deep, since you want the wheels to turn smoothly. Also, drill for the small pegs (Y) that secure the pair of



### Bill of Materials (all dimensions actual)

Part	Description	Size	No. Req'd.
<b>Cab/Chassis</b>			
A	Chassis	3/4 x 3 x 11 1/2	1
B	Hood	3/4 x 3 x 2 1/2	1
C	Lower Hood	1/4 x 3 x 2 1/2	1
D	Grill	3/8 x 3 x 2	1
E	Cab Front/Back	3/4 x 3 x 3 1/2	2
F	Roof	1/2 x 3 x 4	1
G	Seat	3/4 x 3/4 x 2 1/2	1
H	Seat Back	1/2 x 2 x 2 1/2	1
I	Bed	3/4 x 3 x 6 1/2	1
J	Fender	See Full-size Pattern	2
K	Bumper	5/16 x 3/4 x 4 1/2	1
L	Steering Column	7/32 dia. x 1 3/4 long	1
M	Gear Shift	3/16 dia. x 1 1/4 long	1
<b>Livestock Box</b>			
N	Bottom	3/4 x 4 1/2 x 7 1/2	1
O	Front	3/4 x 3 x 4 1/2	1
P	Corner	3/4 x 1 1/4 x 3	2
Q	Side Rail	1/2 x 5/8 x 6 3/4	8
R	End Rail	1/4 x 5/8 x 2 1/2	4
S	Post	1/4 x 1/2 x 3	8
<b>Wheels/Pegs*</b>			
T	Large Wheel	2 dia. x 5/8 thick	4
U	Medium Wheel	1 dia. x 5/16 thick	1
V	Small Wheel	3/4 dia. x 3/16 thick	2
W	Large Peg	See Detail	5
X	Medium Peg	See Detail	2
Y	Small Peg	See Detail	4

small wheels (V) that serve as headlights, and glue these parts in place.

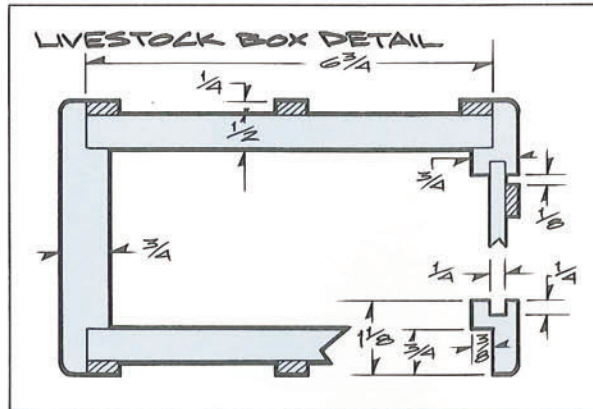
All that's left on the cab are the fenders (J) and the bumper (K). Cut the bumper to size, then chamfer the front edges and mount to the chassis by drilling through for the pair of medium-size pegs (X). To make the fenders, first use the full-size pattern to transfer the fender profile to your  $\frac{3}{4}$  in. thick fender stock, then cut the fender shape with the band saw or scroll saw, and sand smooth. One trick to getting both the fenders to the exact same shape is to use doublestick tape to hold the fenders together, and then sand them at the same time on the drum sander. Apply a generous chamfer or roundover to the outside edges of the fenders (to avoid splinters), then glue the fenders in place, allowing adequate clearance for the front wheels.

### The Livestock Box

The livestock box is made as a separate unit, which is then glued in place on the truck bed. You'll need three stock thicknesses:  $\frac{3}{4}$  in. for the bottom (N), front (O) and corners (P),  $\frac{1}{2}$  in. for the side rails (Q) and  $\frac{1}{4}$  in. for the end rails (R) and posts (S). Use the table saw or the router table to establish the  $\frac{1}{4}$  in. deep by 1 in. wide rabbet on the bottom, the  $\frac{3}{8}$  in. deep by  $\frac{3}{4}$  in. wide rabbets on the ends of the front, and to make the  $\frac{3}{8}$  in. deep by  $\frac{3}{4}$  in. wide rabbet and the  $\frac{1}{4}$  in. deep by  $\frac{1}{4}$  in. wide groove on the corners. The overhead view shown in the Livestock Box Detail should help you to

see the relationship of the various parts.

The simplest way to make the two corners is to start with a piece of stock about 8 in. long, establish the rabbet and groove, and then crosscut to yield the two corners. The extra length just makes the piece a little easier—and safer—to handle. The same holds true for the



remaining parts—the side rails, end rails and posts. Rip lengths of stock sufficient to yield the various parts, then crosscut to rough, but not final length. As we'll see, it's best to cut these parts—the corners, rails and posts—a little long for now.


Once the parts have been cut to size, all that remains is to assemble them. As with the cab parts, don't be overly concerned with getting everything to register perfectly flush at the sides and ends of the bottom. You'll be using the disk sander to sand these surfaces smooth later, once the glue has dried.

The easiest way to handle the livestock box assembly is to first make several subassemblies. Glue up four of

the side rails and three of the posts to form one slatted side, repeat the assembly to form the remaining slatted side, and glue up the four end rails with the two remaining posts to form the sliding gate. Here's where the extra length of the parts comes in handy. Once the slatted sides are out of clamps, you can use the table saw to trim the ends flush. Another clever way to make the slatted sides and the sliding gate is shown in the Time-Saver Tip. The advantage of this method is that the boards that yield the side rails need only be cut to width and final length. The kerf from the table saw blade is then used to separate the board into four individual rails after the posts have been glued in place!

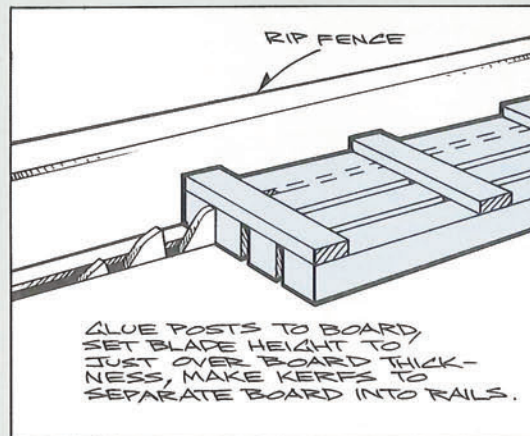
Whatever method you use to make the slatted sides and the sliding gate, now assemble these parts, the bottom, front and corners. When this assembly has dried, use the disk sander to fair in any irregularities at the sides, ends or top, then trim the ends of the sliding gate to allow it to slide smoothly up and down within the grooves in the corners. Round the corners of the completed livestock box, then glue it to the bed.

We don't usually apply a finish to wooden toys, but if you prefer something on the wood, then try Preserve Natural Non-toxic Nut Oil

Preserve is a penetrating oil that's made from nut meats, and it's truly safe, both as a liquid and when dry. 

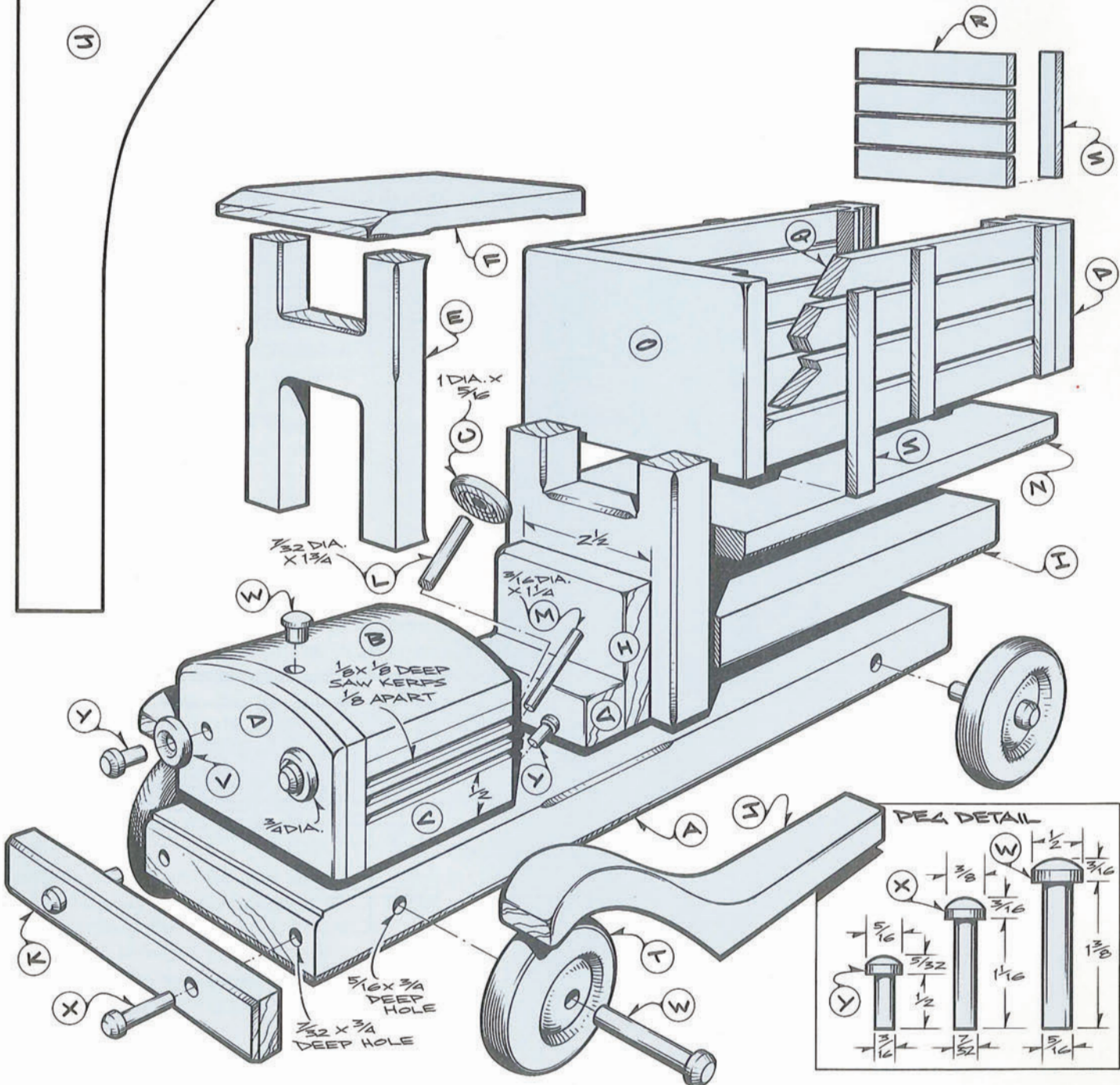
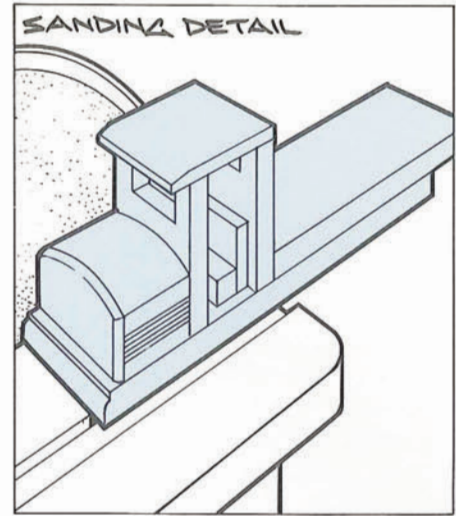
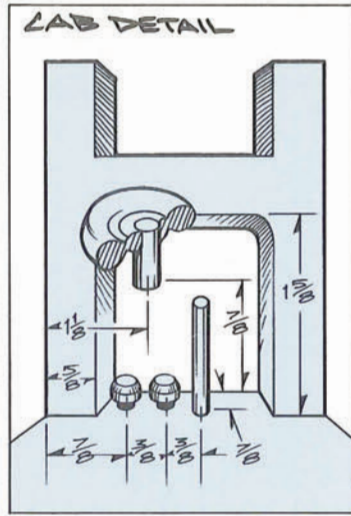
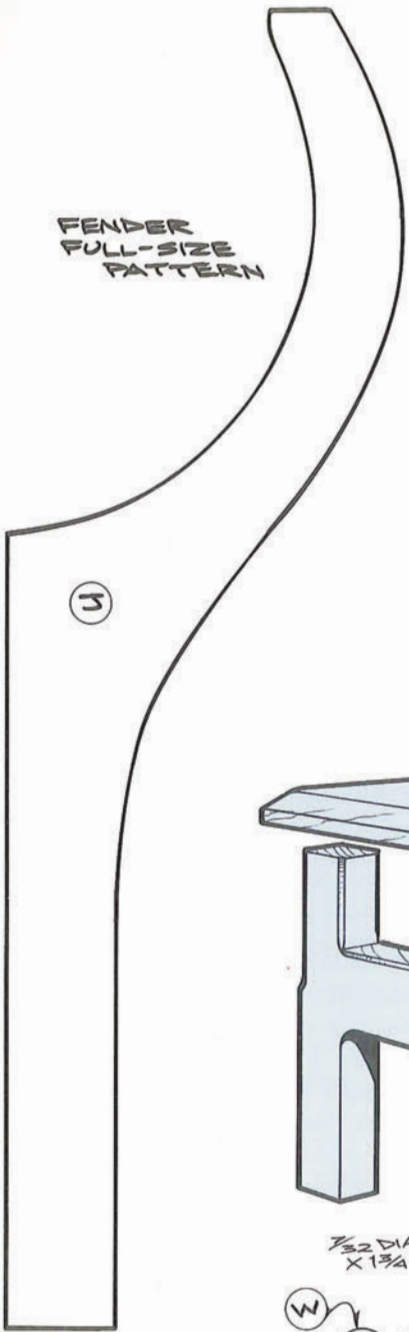
## Time Saver Tip

If you've ever spent time fussing with gluing up a series of slats or rails onto their carrying posts, you've probably been perplexed trying to keep all the rails or slats from sliding out of alignment, and with keeping them all spaced evenly apart. We've seen tips that help—such as inserting small brads, and snipping off the heads so that about  $\frac{1}{8}$  in. stands proud—to keep the parts from sliding about. But none of the tips we've seen is as easy as this one.



First, glue the posts to a solid board, and then use the table saw, with the blade raised just a hair higher than the thickness of the rail board, to create the individual rails or slats. The advantages are obvious: perfectly spaced rails, perfectly even ends, an economy of time and effort, and no hassle. Don't even worry about setting the rip fence perfectly so each kerf is the same distance apart—no one will notice if the rails aren't all exactly the same width.

FENDER FULL-SIZE PATTERN



# WOODWORKER'S WJOURNAL

Thank you for purchasing this *Woodworker's Journal* Classic Project plan.

*Woodworker's Journal* Classic Projects are scans of much-loved woodworking plans from our library of back issues. Please note that specific products and sources cited in a plan when it originally appeared may no longer be available.

If you experience any problems with this plan, please contact: [info@woodworkersjournal.com](mailto:info@woodworkersjournal.com)

or

Attn: Classic Projects  
Woodworker's Journal  
4365 Willow Drive  
Medina, MN 55340

Thank you again for your purchase, and happy woodworking!

Matt Becker  
Internet Production Coordinator