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## ATTENTION: SMALL FARM OPERATORS

# Portable Farrowing Crate

Richard E. Phillips and Donald C. Rains  
Department of Agricultural Engineering

This portable farrowing crate is designed to farrow a sow inside an existing building. It is easy to construct from native lumber in less than 8 hours by following these steps.

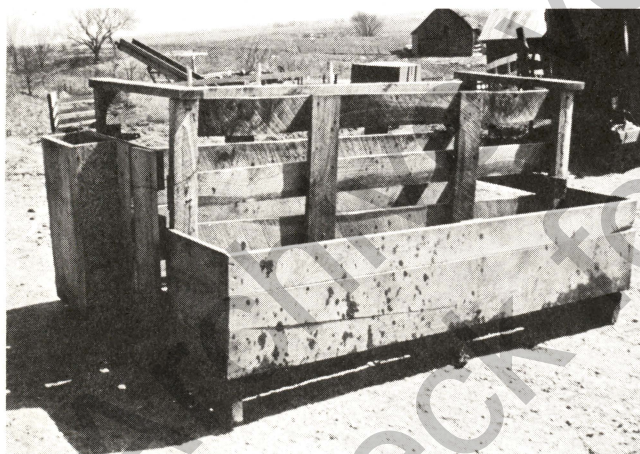


Figure 1. View of assembled farrowing crate.

## Crate Construction:

Step 1—Cut the lumber into the number and size of pieces indicated in the following table.

Table 1: Cutting Schedule for Crate

Item	Number Required	Size	Cut From
Skids	3	2x6x5'	2x6x10'
Floor Slats	12	1x6x7'	1x6x4'
Floor Plates	4	2x4x1' 3"	2x4x10'
Caps-Uprights	2	2x4x2' 6"	2x4x10'
Uprights	4	2x4x3'	2x4x12'
Rails-Sow	6	1x6x7'	1x6x14'
Side Boards	6	1x6x7'	1x6x14'
End Boards	12	1x6x1' 6"	1x6x10'

## Step 2: Assemble Floor Section

- (a) Cut each end of each skid off at a 45 degree angle so the finished crate can be skidded without digging into the ground. See Figure 2.

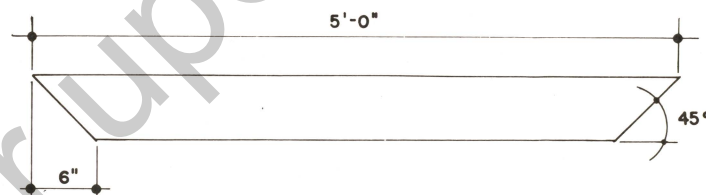


Figure 2. Skid showing bevel cuts required at each end. Cut 3 skids to these dimensions.

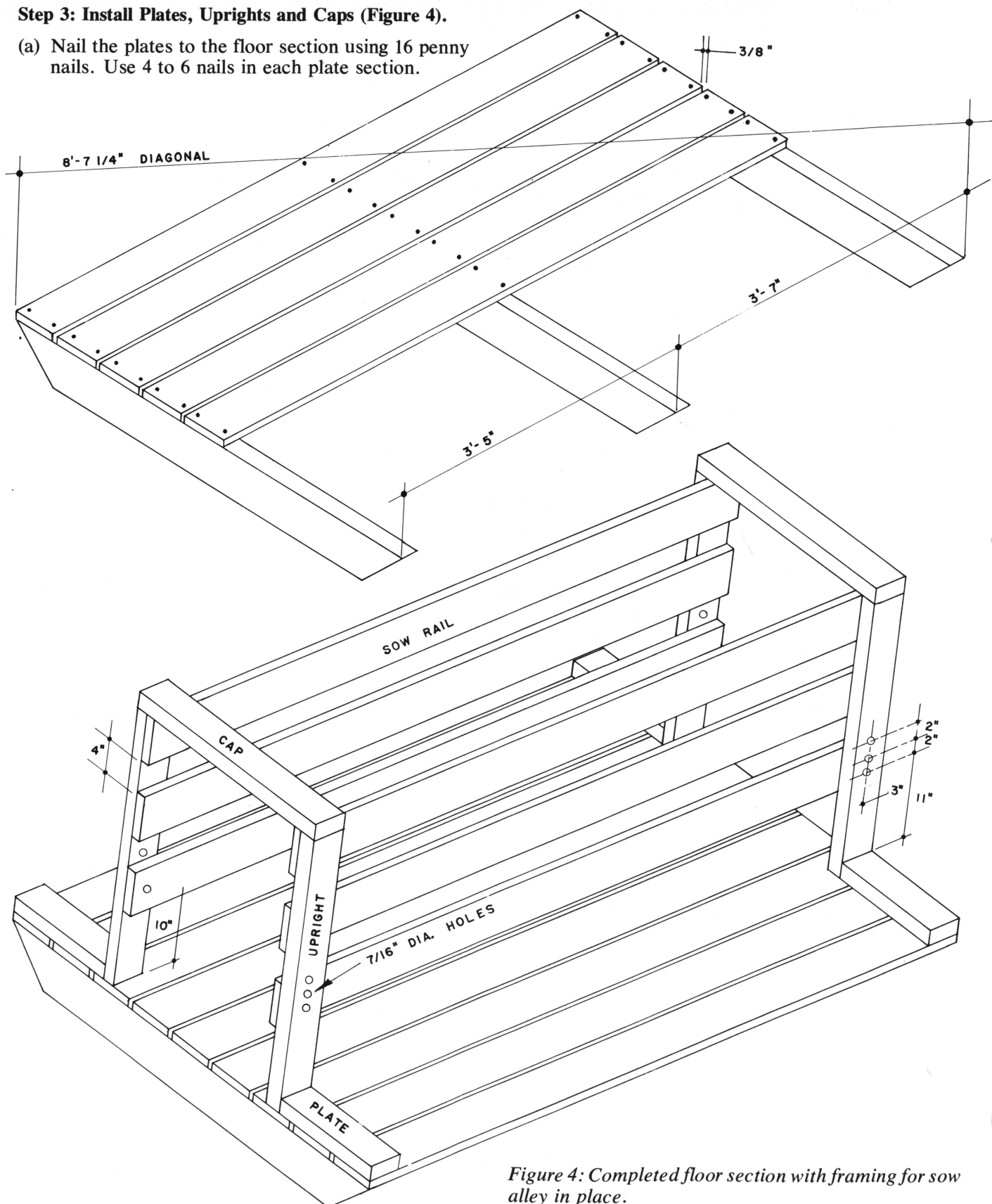
- (b) Lay skids out on a flat surface that you can work on easily. The outer skids should be 7 feet apart and the center skid is located half way between the outer skids. See Figure 3 for layout of the skids.
- (c) Place one of the floor slats at the end of the skids and nail it to the skids using one 10 penny nail in each skid. This will hold the skids in place until the remainder of the slats are nailed down.
- (d) Place the rest of the floor slats on the skids. Space them  $\frac{3}{8}$  inch apart. Do not nail the slats to the skids yet. You may have to trim the edge of the last slat to make it even with the end of the skids. If you are using green lumber, adjust spacing to allow for shrinkage. Boards should be  $\frac{3}{8}$ " apart after they are dry.
- (e) Square up the floor. Do this by measuring across the diagonals of the floor. The diagonal measurement will be 8' 7 $\frac{1}{4}$ " when the floor is square.
- (f) After the floor is square, recheck the spacing between slats and adjust any that are out of place. Then nail the following down using two 10 penny nails in each slat at each place where it crosses a skid.

- (g) If you are using rough lumber, sand the floor to remove all slivers. A rough floor will cause udder irritation to the sow and create management problems for you.

*Figure 3: Partially assembled floor section showing proper location of skids and spacing of floor boards. Note the diagonal measurement used to square the floor section.*

**Step 3: Install Plates, Uprights and Caps (Figure 4).**

- (a) Nail the plates to the floor section using 16 penny nails. Use 4 to 6 nails in each plate section.



*Figure 4: Completed floor section with framing for sow alley in place.*

- (b) Nail the uprights in place by driving one 16 penny nail through each upright and into the end of the floor plate next to it.
- (c) Nail the cap pieces to the uprights using three 16 penny nails at each joint.

#### Step 4: Install Side Rails.

- (a) Nail the upper two rails on each side of the sow alley in place using four 10 penny nails in each joint.
- (b) Nail the bottom rail on each side in place temporarily using one nail at each end.
- (c) Drill a 7/16" hole in each end of each bottom rail through both the rail and the upright.
- (d) Remove the lower rails and drill 2 more holes directly above the holes in the uprights. These holes should be spaced 2 inches apart. This will allow for adjustment of the lower rail for different sized sows.
- (e) Bolt the lower rails in place using 3/8" carriage bolts with the bolts inserted from the slat side.
- (f) Put 2 more 16 penny nails in each of the uprights where they connect to the floor plate.

#### Step 5: Install Sides.

- (a) Nail the side boards in place using 10 penny nails. Boards should be located as shown in Figure 5.

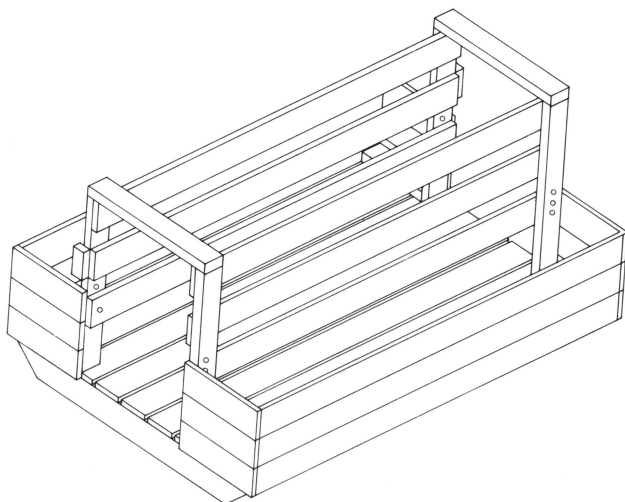


Figure 5—Completed crate before doors are attached. A block of scrap wood has been attached to the upright at one side of the alley to provide a place for the door hinge mounting.

### Door Construction

#### Step 1: Cut Pieces.

- (a) Cut 6 pieces 2' 6" long from two 1x6x8' boards.
- (b) Cut 4 pieces 1' 11½" long from a 1x6x8' board.

#### Step 2: Assembly.

- (a) Lay out the pieces as shown in figure 6 and check the door for squareness using a carpenter's square.
- (b) Nail the uprights to the cross pieces using the 10

penny nails. Bend over the nail points which come through the cross piece. Do not nail the center upright in one of the doors if you intend to build the optional feeder.

- (c) Fasten 2 strap hinges to each door and mount to the uprights at each end of the sow alley. Nail a scrap piece of wood to the upright at the point under the upper door hinge to make door hang straight.
- (d) Mount hasps on the doors and secure catches to the uprights.

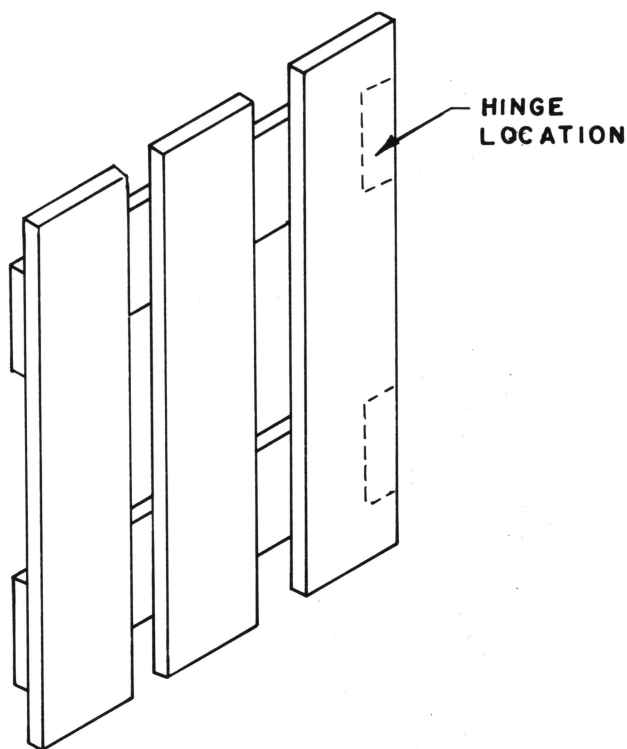


Figure 6—Assembled door section. Leave out the center slat of one door if you plan to include the optional feeder unit.

### Optional Feeder

Use of the optional feeder will eliminate the necessity of turning the sow out to feed and reduces labor requirements.

#### Step 1: Cut Pieces.

- (a) Use Table 2 and cut pieces required for the feeder.

**Table 2: Cutting Schedule For Feeder**

**Use of Planed Lumber for Feeder will simplify Cutting of pieces.**

Item	Number Required	Size	Cut From
Upper Front	1	1x10x1' 0"	
Lower Front	1	1x10x6"	
Bottom	1	1x10x11½"	1x10x8'
Rear	1	1x10x2' 2"	
Baffle	1	1x10x10"	
Side	2	1x12x2' 3"	1x12x5'



- (b) Mark and cut side pieces to match dimensions shown in Figure 7.

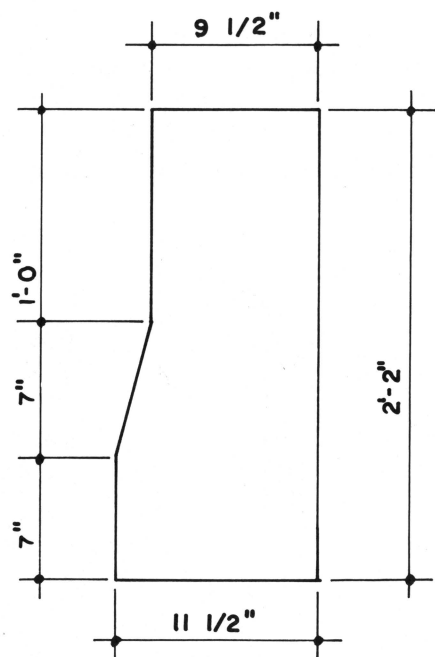


Figure 7: Layout of end of feeder unit. Cut two pieces to these dimensions.

### Step 2: Assembly.

- (a) Use 8 penny nails to assemble feeder unit. Use figure 8 as a guide for assembly.

### Step 3: Installation.

The feeder is designed for installation in place of the center slat in the door at the front of the sow alley. Nail the feeder securely to the outside two slats.

### Heat

The pig areas should be heated during cold weather. Mount one 250 watt heat lamp 18 inches above the floor over each pig area. These should then be operated a minimum of 3-4 days after farrowing. Then, if weather permits, you can replace them with regular 75 watt light bulbs. The light given off by these bulbs will attract pigs out of the sow area and reduce the possibility of crushing by the sow.

### Bill of Materials

The following bill of materials can be used for cost

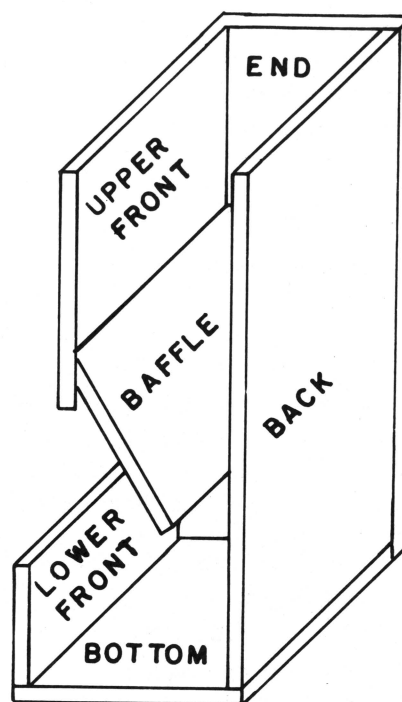


Figure 8: Feeder unit with one end removed to show baffle installation. Upper edge of the baffle should be planed or cut to fit the upper front as shown. Use of surfaced or planed lumber for the feeder will simplify cutting and assembly.

estimation or ordering purposes.

No. Pieces	Size
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#### Crate and Doors

12	.....1"x6"x14'
2	.....1"x6"x10'
3	.....1"x6"x 8'
1	.....2"x4"x10'
1	.....2"x4"x12'
2	.....2"x6"x10'

1 lb. 10d Common Nails  
 1 lb. 16d Common Nails  
 4— $\frac{3}{8}$ " x $\frac{1}{2}$ " Carriage Bolts  
 4—6" Strap Hinges  
 2—Hasps

#### Optional Feeder

1	.....1"x10"x8'	Surfaced Lumber
1	.....1"x12"x5'	Surfaced Lumber
½ lb. 8d Common Nails		