



Milk Stand / Goat Stand Plans

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Tools needed:

Saw	Jig Saw	Phillips Screwdriver
Tape Measure	Hammer	Square
Sand Paper/Sander	Drill with bits: 1/8", 3/32", 5/32", 11/32", 11/16	

Hints:

- Note that lumber is not actually the size it is called. For example, a 2X4 is not really 2 inches by 4 inches.
- Read and understand the entire step before actually doing it.
- Pre-drill holes before screwing using the 1/8" bit.
- When attaching the wood together with your screws, make sure not to hit any screws or tacking nails that you have already driven in from the other side.

Material list:

Lumber (note: we do not use pressure treated lumber)

1" x 8" x 10'	parts A	Cut into three 36" pieces
(2) 1" x 4" x 6'	parts B & F	Cut into four 36" pieces
1" x 4" x 8'	parts C & E	Cut into two 20 1/2" pieces & two 18 1/2" pieces
1" x 4" x 8'	parts G & H	Cut into four 21 1/2" pieces & two 4 1/2" pieces
2" x 2" x 6'	parts J	Cut into three 20 1/2" pieces
2" x 4" x 6'	parts D	Cut into four - 14" pieces*

*Parts D are the legs and their length may be adjusted, longer or shorter, if desired. The legs may be made from pressure treated wood if you wish.

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Material list continued:

Box 2" Exterior "deck" screws

(4) 3" Exterior "deck" screws

A couple dozen 1 1/2" Exterior "deck" screws

(2) 3" Corner Brace with screws (also called corner brackets)

(1) 1/4" x #20 x 2 1/2" slotted round head machine screw

(1) 1/4" wing nut

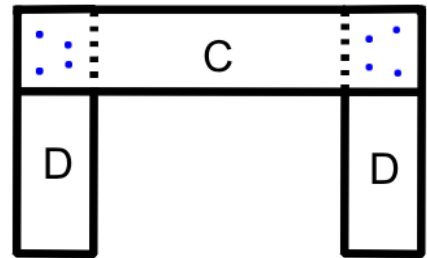
(1) 1/4" x #20 hex nut

(2) 1/4" flat washers

(1) 4" hook and eye latch with extra eye

Handful of 1" finish nails (for tacking)

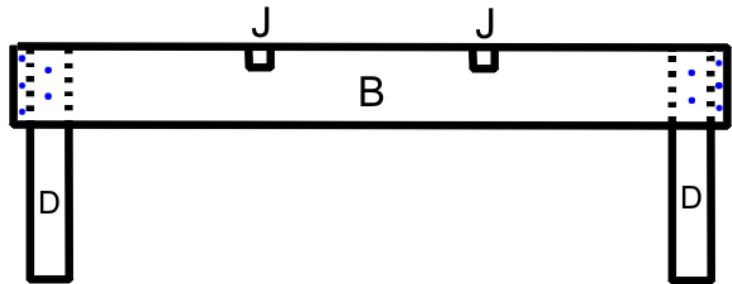
Fig. 1



Constructing the Base:

1. Lay 2 legs (2" x 4" x 12") part (D) (Fig. 1) down with one 20 1/2" end piece (C) across the top, flush with the top ends. Secure with 2" screws. Repeat process for opposite end.

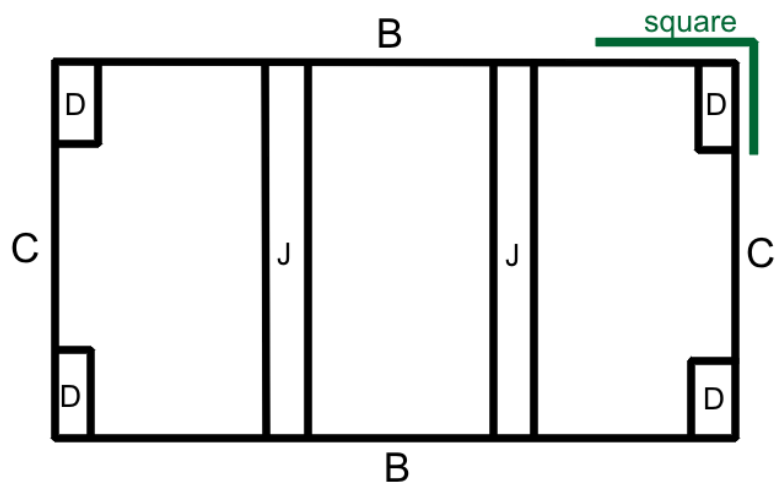
Fig. 2



2. Attach both sides (B) 1" x 4" x 36" (Fig. 2) with 2" screws.

Fig. 3 (Underside of base)

3. Attach braces (J), 2" x 2" x 20" to the 1" x 4" sides (parts B) (see Fig. 2 & 3) flush with the top of parts (B) and 12" apart using 2" screws through parts (B) into parts (J).



4. Check base for square (Fig. 3). Adjust if necessary.

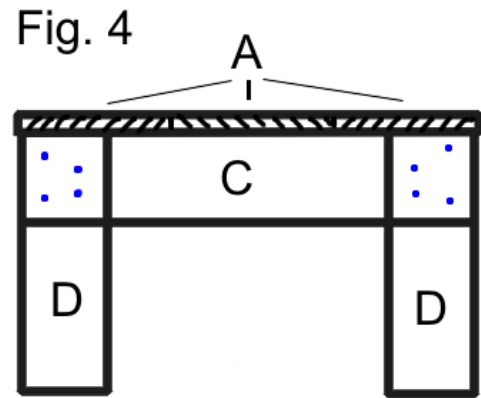
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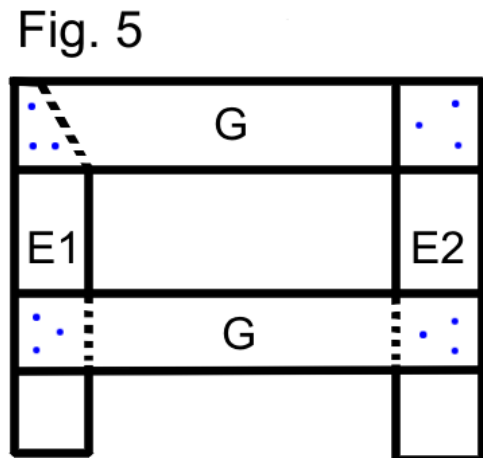
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- Screw three 1" x 8" x 36" pieces (A) to base (Fig. 4) . Keep square as you go. Screw around edges and to the braces using the 1 1/2" screws.
- Sand all edges and round off corners.



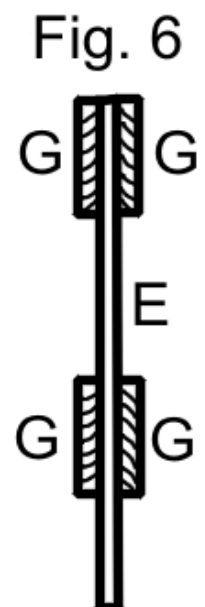
Constructing the Head Gate:

- Cut one 18 1/2" piece (E1) as follows:
From one corner, measure over and mark the width at the top at 3". From the same corner, measure down the length 5 1/2" and mark. Draw a line from the first mark to the second and cut. See Fig. 5 left side part E1 has a black dotted line indicating this angle cut.
- Lay out the two 18 1/2" pieces (E1 & E2) and place two 21 1/2" pieces (G) across, with top flush and bottom 4" from ends of part (E) (Fig. 5). Use 1" finish nails to tack structure in place without going through the other side. Turn over and put two more 21 1/2" pieces (G) into place in the same manner. In effect "sandwiching" the (E) parts.



See Fig. 6 – This is what it should look like.

Secure with 2" screws from both sides - Indicated by blue dots is Fig. 5. NOTE: Use an opposite triangle pattern on the reverse side so you do not hit the screws coming from the other side.



3. Cutting the "Head hole": (Refer to Fig. 7.) Cut a notch in two of the 1" x 4" x 36" (F1 & F2) beginning 4" from the top and down 13 1/2" from the first cut with a depth of 1 1/2". Cut entrance and exit in a curve that will not bind your jigsaw

4. Cut the bottom of (F1) as follows: From the inside corner (same side as the head hole- see Fig. 7), measure 3" across width and mark. From the same corner measure up the length 4 1/2" and mark. Draw a line from mark to mark and cut. This piece (F1) is the movable portion of the head gate. Sand well so no splinters are present and parts move easily.

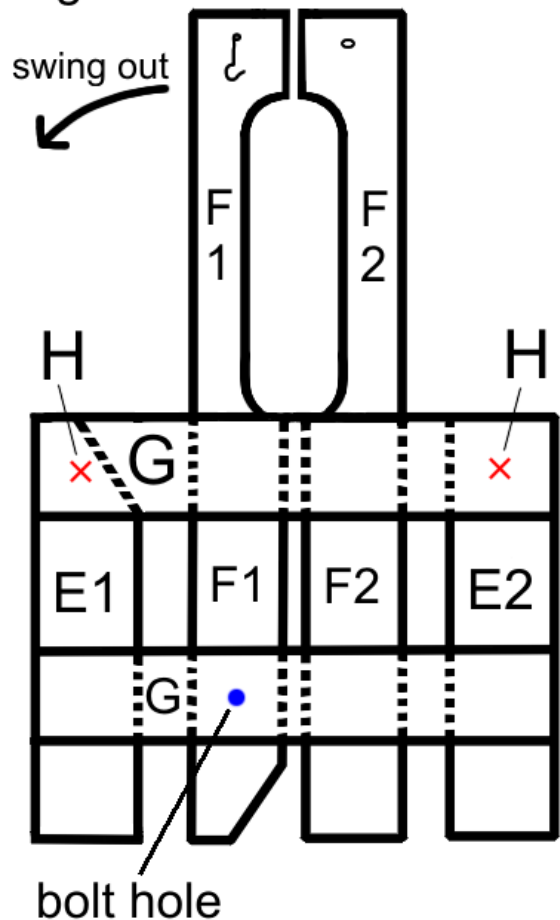
5. Insert and slide the part (F2) (not cut at an angle on the bottom) between parts (G). Place 1/2" from center on (G) and 4" below bottom part (G). Secure with 2" screws.

6. Slide part (F1) into the head catch (see fig. 7). Make sure it has been sanded enough to allow free movement within the head gate. Line up part (F1) 1" from part (F2) already installed.

7. Drill a hole with a 11/32" bit through the lower part (G), (Fig. 7), part (F1) that moves, and part (G) on opposite side. Use a 13/16" bit to enlarge the hole on both sides on both sides no more than 1/4" deep. This allows 1/4" x 20 x 2 1/2" slotted round screw with 1/4" x 20 hex nut to be recessed. Install the bolt: place one 1/4" washer on the 2 1/2" slotted round crew, place screw though bolt hole, place another washer on the screw and then the hex nut. Tighten.

8. Attach 1" x 4" x 4 1/2" (H) to upper part (G) (Fig. 7) at the "X" marks that will face away from the base of the stand. Pre-drill holes to keep these parts from splitting and attach with 2" screws.

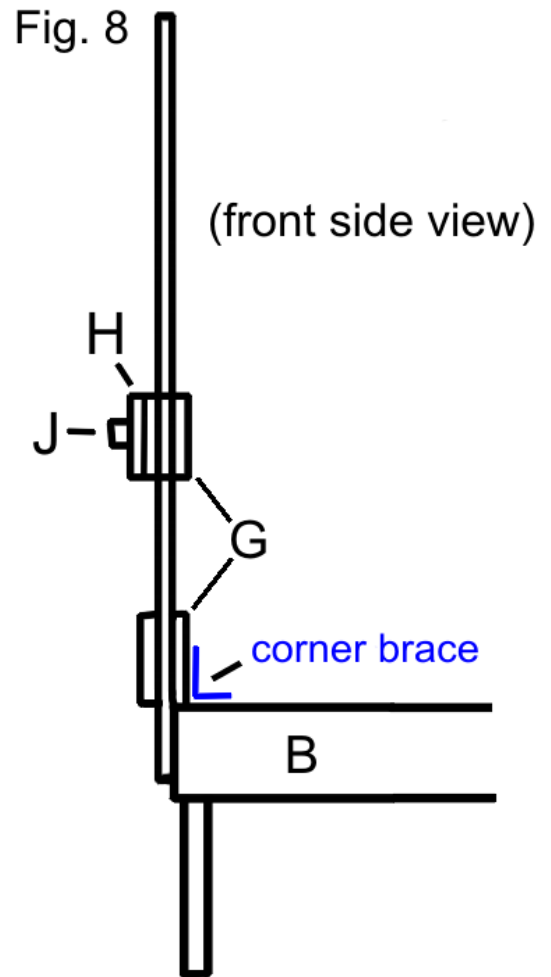
Fig. 7



- Attach parts (J), 2" x 2" x 20 1/2", to parts (H) (Fig. 8). Center and attach using two 3" deck screws on each end. This will hold the removable feeder. See photo below.

Note: We found that eventually we needed to add a thin furring strip to (J) so the feeders we used would fit a little more snugly. You can adjust later to suit your needs.

- Sand all edges and round off corners



Attach Head Gate to Base:

Refer back to Fig. 4. Enlist the aid of a helper.

- Hold the head gate with the feeder holder facing away from the base, so that the bottom of part (G) rests on the base surface (A).
- Attach assembled head gate onto base using 2" screws through parts (E1, E2 & F2). DO NOT put screws through (F1).



3. Attach the Corner Braces to the head gate and base by as shown in photo .

Install Head Gate Closure:

Attach 4" hook and eye latch to head gate side facing toward the base. Normally, the closed position allows the tops of the head gate (F) to touch. Additional eyes can be installed for thicker necked animals (like bucks and wethers). See photos.



Adjusting to suit your needs:

We removed some of the wood from one (F) piece so that it would close even tighter to accommodate younger kids (two months old). In this case, when using the stand for kids, the gate is secured closed by wrapping a bungee cord around it.

