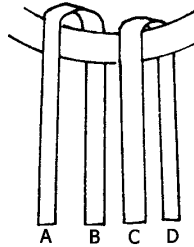


## MAKING A HORSE HALTER

An interesting and useful winter project is the construction of a rope halter. The project can be made at a very low cost, since the only material needed is nylon twine. Used nylon bail ties are also suitable, if chosen carefully.

This rope halter has two basic types of braiding or plaiting: round and flat. Before starting the halter, you should practice both types.

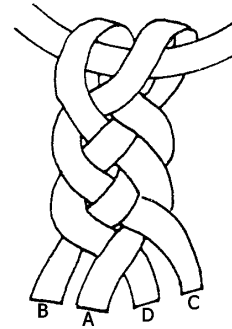
Begin by using two strands. Place them over a ring or hook fastened to something solid. For practice, rough binder twine is sufficient. Try to avoid using the same ties as you plan to use for the halter. After being worked, the ties will twist and are difficult to braid a second time.



### Flat Braiding

<p>Begin by first crossing the two center strands. (C over B). Then bring B over D.</p>	
<p>Flat braiding is worked from the far left to the right. Starting with the far left strand A, weave it over C, under D over B.</p>	
<p>Strand C is now the far left, weave it to the right, over, under, over.</p>	

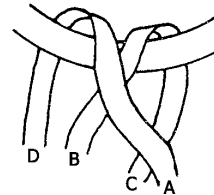
Continue by always working the far left strand to the right, weaving it over one strand under another, and over the third.



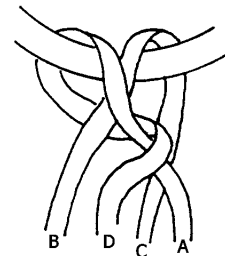
### Round Braiding

Round braiding may be a little more difficult than the flat plait. Alternate strands are brought around to the rear instead of straight across the front, as in flat braiding. When practicing, use two different colors.

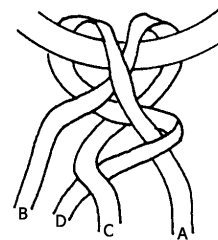
Begin by crossing the two middle strands. Bring A to the right over B, and carry B toward the left.



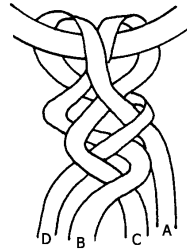
Bring D around to the rear, under C and over A.



Bring C around to the rear and back again to the front, passing under B and over D.



Strand B is worked next. Again bring it to the rear and back to the front under A and over C.



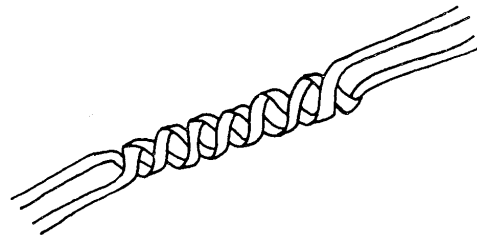
There are two strands on each side. Work alternately with the outer or upper ones, passing to the rear and following the sequence of under one strand over the next. Work the braid carefully, keeping it closed up. Unless the same amount of pull is used on each strand, the finish braid will look uneven.

## Constructing the Rope Halter

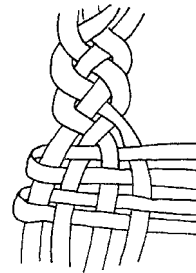
The entire halter requires 20 ties approximately 10 feet in length. Two ties are used for each strand.

### Begin with the Nose Band:

Use 8 ties (4 strands). Begin the center of the strands and flat braid approximately one foot. Clamp a clothespin on each end of the braid.

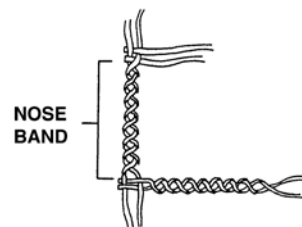


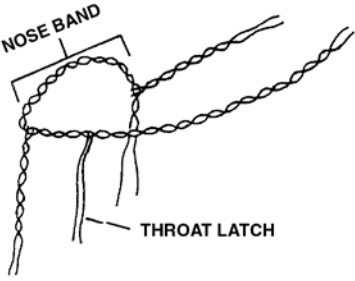
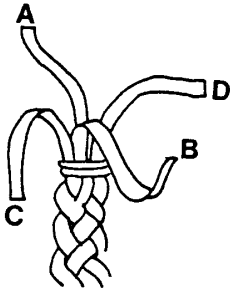
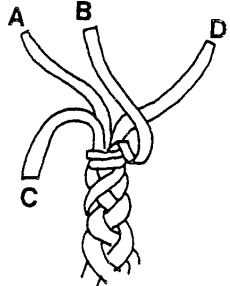
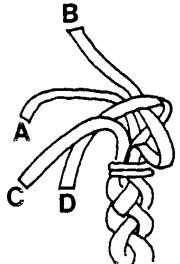
Weave two strands into each end of the flat braid, as shown above.

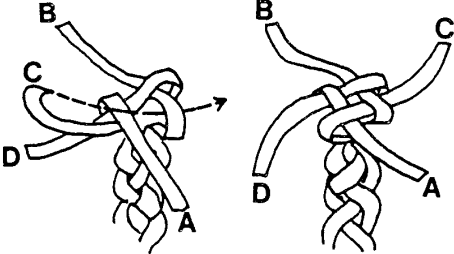
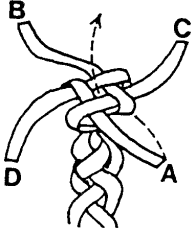
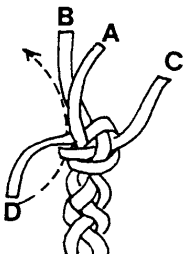
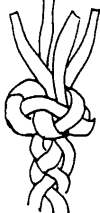
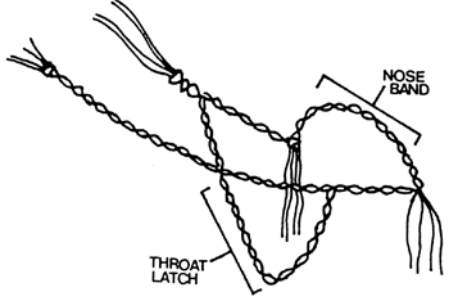


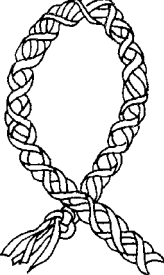
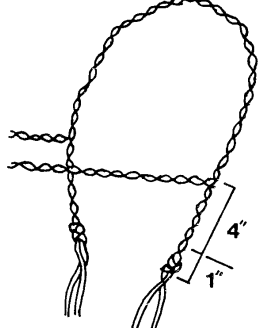
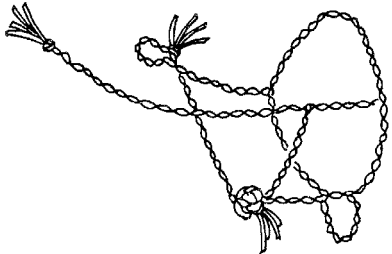
### From the Nose Band, Work on the Right Side:

Flat braid the right side piece approximately 9".



<p>Weave another 2 strands into the right side piece. These 2 new strands will form the throat latch. Continue braiding the right side piece for another 1 1/2 feet and tie a Turks' Head Knot.</p>	 <p>A line drawing of a horse's head in profile, facing right. A braided nose band is shown around the horse's nose. A braided throat latch is attached to the bottom of the nose band. Labels 'NOSE BAND' and 'THROAT LATCH' are present with arrows pointing to the respective parts.</p>
<p>To tie a Turks' Head Knot, lash the strands together and turn the ends upward.</p>	 <p>A diagram showing four strands labeled A, B, C, and D. Strands A and C are on the left, and B and D are on the right. They are being lashed together at a central point. The ends are turned upward.</p>
<p>Fold strand B over D leaving a bight in B where it is lashed.</p>	 <p>A diagram showing the four strands A, B, C, and D. Strand B is now folded over strand D, creating a bight in strand B. Strand C remains on the left.</p>
<p>Fold strand D over both B and A, also leaving a bight in D.</p>	 <p>A diagram showing the four strands A, B, C, and D. Strand D is now folded over both strands B and A, creating a bight in strand D. Strand C remains on the left.</p>

<p>Pass A over D and C. Then thrust C over A and through the bight in B, as indicated by the arrow line.</p>	
<p>Continuing in the same direction, which in this case, is counter clockwise, pass A around and to the outside of the bight of B and up under B and C. This strand emerges in the center of the braid as indicated by the arrow line.</p>	
<p>Pass D around and outside of the bight of C and then up through the center under C and A.</p>	
<p>Work the knot tight, but be sure to press it back on the braid or it will be inclined to slip upward. Continue working counter clockwise and bring B and C up through the center in the same manner.</p>	
<p><b>From the Nose Band, Work on the Left Side Piece:</b></p>	
<p>Flat braid the left side piece approximately 9". Flat braid the throat latch piece approximately 19".</p>	
<p>Join the left side piece of the throat latch, and start a round braid. You are now working with 16 ties - 4 ties per strand.</p>	

<p>Round braid approximately 7". Make a loop in the braid and slip it back through itself, just passed the join. Tie a second Turk's Head Knot.</p>	
<p><b>Make the Halter Shank Loop:</b></p>	
<p>Working on the remaining portions of the noseband, flat braid approximately 4" beyond the side piece joins. Then round braid 1" on each side.</p>	
<p>Join the two side pieces and continue round braiding another 7". Make a second loop similar to the one made on the left side piece, slipping the braid back through itself at the join.</p> <p>Braid round for another 8". Make a third loop through the throat latch and tie another Turk's head knot.</p>	

Your halter is completed.

This rope halter is designed for a mature light horse. However, the pattern can easily be altered to fit a younger horse or foal, as well. In addition leather lacing or synthetic cord could be used to make a more attractive halter.

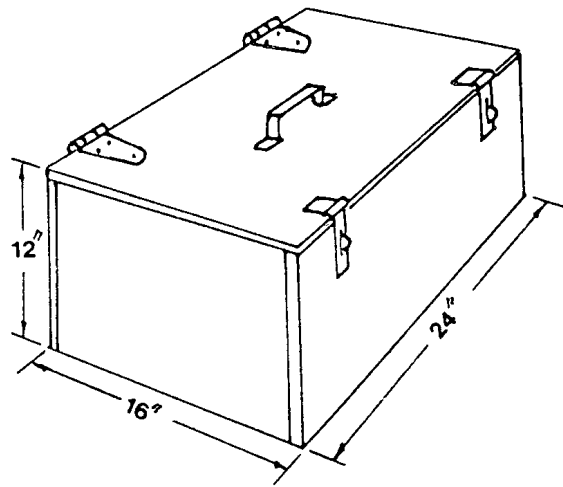
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# TACK BOX

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## Small Tack Box #1

24 x 16 x 12 inches



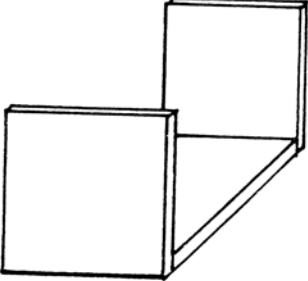
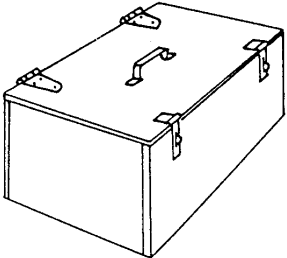
### Materials:

- 1 sheet (4' x 4') 1/2" plywood
- 2 hasps
- 1 handle
- 2 hinge straps
- Wood screws
- Finish nails

### Equipment:

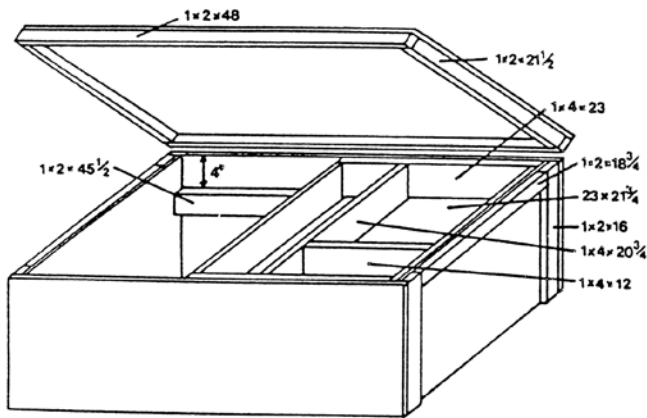
- Pencil
- Ruler or measuring tape
- Saw
- Screwdriver
- Drill
- Vise
- Sander



<p>2. Cut the board into the desired pieces using the saw.</p>	
<p>3. Using glue, attach the end pieces to the box bottom.</p> 	<p>a. Allow the glue some time to dry before setting the pieces together. The glue should feel practically dry.</p> <p>b. Secure the pieces with nails or screws. (If you are using screws, you must drill a sink hole. This must be smaller in diameter than your screw, or it will not hold).</p>
<p>4. Attach the sides using the same procedure.</p>	
<p>5. Attach the rails to the front and back piece with glue, then nails or screws. The rails should be 4" - 6" below the lid.</p>	
<p>6. Attach the side and end pieces to the tray using glue and screws as in steps 3a and 3b.</p>	
<p>7. Place the tray divider in the tray. Attach it with screws or nails. This may be centered, or off to the side.</p>	
<p>8. Sand the edges and outside of the box. Paint or stain the wood.</p>	
<p>9. Attach the lid.</p>	<p>a. Set the lid evenly on top of the box.</p> <p>b. Take the hinges and mark their location on the box and lid. Mark the nail or screw holes in them.</p> <p>c. Lift the hinges and drill holes for the screws where you have marked them.</p> <p>d. Attach the hinges.</p>
<p>10. Attach the handle.</p> 	<p>a. Locate the center of the lid.</p> <p>b. Center the handle over your marks.</p> <p>c. Drill holes for the screws.</p> <p>d. Attach the handles.</p>

## Large Tack Box #2

1 1/2 x 2 x 4 feet

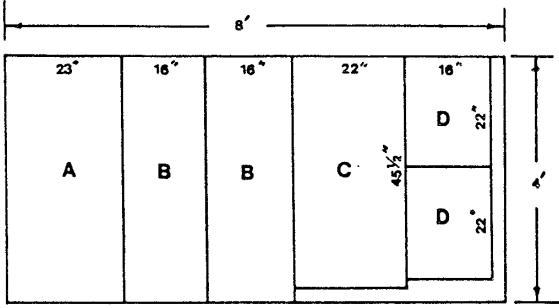
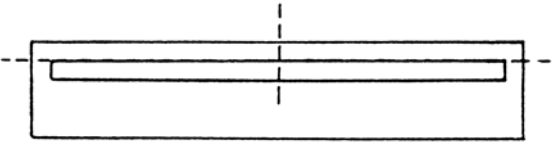


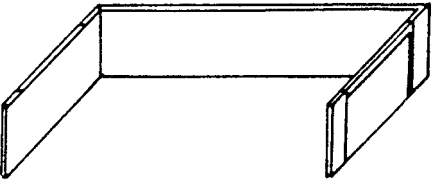
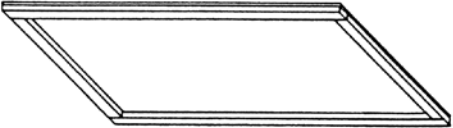
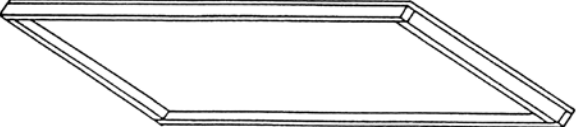
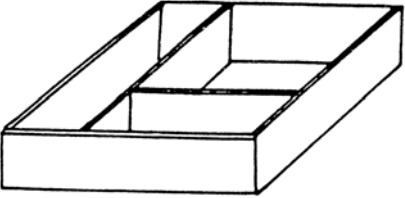
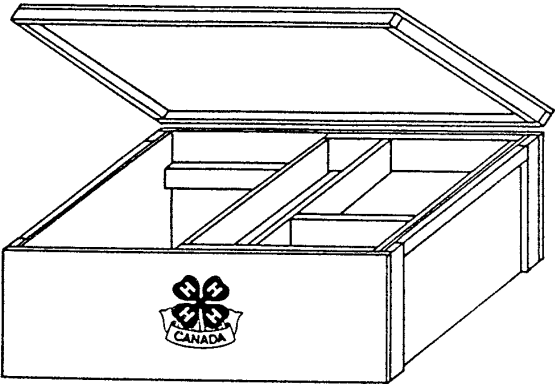
### Materials:

- 1 - 1" x 4" x 10' pine s4s
- 4 - 1" x 2" x 10' pine s4s
- 1 - 4' x 8' x 1/2" exterior grade fir plywood
- 1 - 2' x 2' x 1/4" interior grade fir plywood
- Water resistant glue
- Screws or finish nails
- Paint or stain
- 2 hinges
- 2 handles
- 1 fastener

### Equipment:

- Pencil
- Ruler or measuring tape
- Saw
- Sander
- Screwdriver
- Drill
- 4 wood vises
- 1 bench vise

Steps	Method:																												
<p>1. Mark the sheet of 1/2" of exterior grade as shown.</p> 	<p>Using a pencil and yard or meter stick, measure and draw lines follow the pattern.</p>																												
<p>2. Cut the board into the desired sizes.</p>	<p>For "c" and "d" cut to the end of the board instead of trying to make the corners meet.</p>																												
<p>3. Cut the 1 x 2 x 10 pine s4s as follows.</p>	<p>Care needs to be taken when cutting or the lengths will not be accurate.</p>																												
<table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td style="text-align: center;">18.75</td> <td style="text-align: center;">18.75</td> <td style="text-align: center;">18.75</td> <td style="text-align: center;">18.75</td> <td style="text-align: center;">21.5</td> <td style="text-align: center;">21.5</td> <td style="text-align: right;">2" waste</td> </tr> <tr> <td colspan="2" style="text-align: center;">48</td> <td colspan="2" style="text-align: center;">48</td> <td style="text-align: center;">16</td> <td style="text-align: center;">8</td> <td style="text-align: right;">8" waste</td> </tr> <tr> <td style="text-align: center;">16</td> <td colspan="2" style="text-align: center;">45.5</td> <td colspan="3" style="text-align: center;">45.5</td> <td style="text-align: right;">13" waste</td> </tr> <tr> <td colspan="2" style="text-align: center;">45.5</td> <td colspan="2" style="text-align: center;">45.5</td> <td colspan="3" style="text-align: right;">29" waste</td> </tr> </tbody> </table>		18.75	18.75	18.75	18.75	21.5	21.5	2" waste	48		48		16	8	8" waste	16	45.5		45.5			13" waste	45.5		45.5		29" waste		
18.75	18.75	18.75	18.75	21.5	21.5	2" waste																							
48		48		16	8	8" waste																							
16	45.5		45.5			13" waste																							
45.5		45.5		29" waste																									
<p>4. Assemble the box.</p>	<ol style="list-style-type: none"> <li>Attach the 1" x 2" x 18 3/4" and 1" x 2" x 16" strips to the end pieces (16" x 22").</li> <li>Glue the 1 x 2 to the plywood.</li> <li>Drill holes for the screws.</li> <li>Secure with screws.</li> </ol>																												
<p>5. Attach the tray support to the sides.</p> 	<ol style="list-style-type: none"> <li>Measure and draw a line 4" down on the long side of piece "B." One line on each board.</li> <li>Mark the center.</li> <li>Take the 2 - 1" x 2" x 45 1/2" boards and mark the center.</li> <li>When the glue on the boards is dry enough to attach, line up the center mark on the strips.</li> <li>Drill holes for screws.</li> <li>Secure the screws. (They should not show on the outside of the box).</li> </ol>																												

<p>6. Attach sides to end pieces.</p> 	<p>a. Use glue to attach. b. Drill holes for screws. c. Secure with screws.</p> 
<p>7. Attach the 45 3/4" and 18 3/4" inch strips to piece "c".</p>	
<p>8. Turn the box upside down and attach the bottom using screws.</p>	
<p>9. Attach the 48" and 21 1/2" strips to the lid (piece "A").</p> 	<p>The narrow strip (1") of the strip rests against the lid.</p>
<p>10. Assemble the sliding tray.</p> 	<p>a. Use the 2' x 2' interior grade fir plywood for the tray bottom. b. Attach the 23 and 21 3/4" 1" x 4" to form the sides. c. Arrange the remaining tray.</p>
<p>11. Sand the outside of the box and tray and the edges.</p>	
<p>12. Paint or stain the box and tray. You can decorate your box by adding your name, your club name and/or a 4 - H emblem.</p>	
<p>13. Take the hinges and place them on the lid and box (they should be the same distance from the corners). Mark the spaces for screws. Attach the hinges.</p>	
<p>14. Attach a latch to the center front of the box.</p>	
<p>15. Attach handles to the sides of the box.</p>	

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## DESIGNS BASED **ON WORK BY:**

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Club Banner	Arlene Vrooman
Western Saddle Pad 1	Arlene Vrooman
Breast Plate, etc.,	Arlene Vrooman
Tack Covers	Cornell University
Cooling Sheet	Cornell University
Leg Wraps 2	Cornell University and Nancy Crisman
Cavaletti	R.C. Church
Cavaletti Construction	Diane Soloman
English Saddle Pads	Arlene Vrooman

