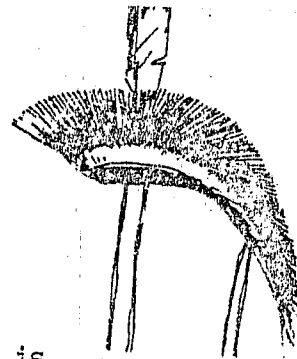
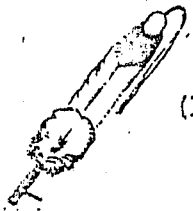
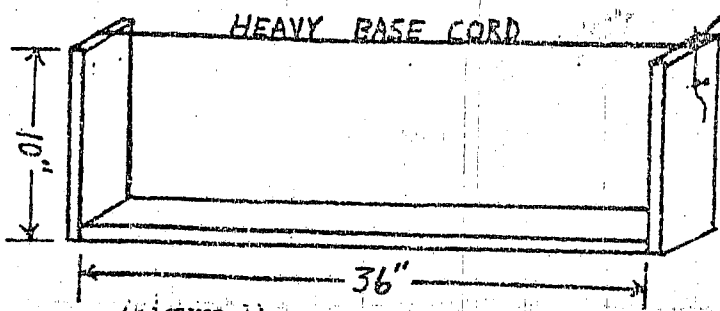


- Porcupine Roach Kit -



(1) First, read all of the instructions carefully so that you'll know how each step fits in. Then follow the step-by-step instructions to completion. These steps assume that you are working from right to left and that you're right handed.

(2) Your first task is to construct a "tying board" as shown in Figure 1. You can use an open-backed chair, but making this board will greatly simplify your work!



(Figure 1)

(3) After the board is completed, stretch the heavy base cord acrossed the tying board as tight as you can and wax it thouroughly with beeswax.

(4) While you can start with either the deer hair or the porly hair, we suggest that you start with deer; it costs less and is a little easier to work. So:

(5) Thoroughly wash the deer tails in warm water and soap. Rinse and let dry. If you're going to dye the deer hair, do it now. You can use any good commercial organic dye or, if you're really into it, pigmentation removed from flowers, bark, etc., may be used.

(6) Carefull & closely, trim the deer hair from the tail. Then arrange the hair on a table from the shortedt hair to the longest. You'll find that the shortest hair is on the tip of the tail.



Figure 2

(7) Take the 72" piece of imitation sinew and seperate it smaller strings approximately the size of "D" thread. The sinew is stronger than thread and is pre-waxed. The deer hair, and porcupine hair, is tied to a heavy base cord in small bunches and these bunches should be less than 1/8" in circumference for the best appearance. So, first tie the sinew "string" to the far right of the cord leaving about 1" of the end hanging looce.

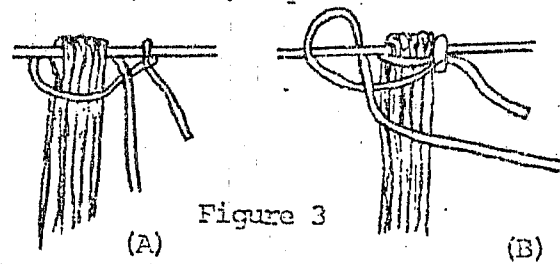


Figure 3

(8) Now grab a small bunch of the shortest deer hair and put behind the base cord as you face it. Bend about 1/2" of the hair over the base cord with your right hand and pinch the hairs together with the thumb and forefinger of your left hand. While pulling down on the hair with your left hand, Tie a knot with your tying string around the bunch of hair with your right hand (Figure 3A). There should be no short bristles of hair sticking out above the bunch. Now, tie a half-hitch (Figure 3B) while pulling down and to the right with the tying string as you secure the knot. (Don't give up in frustration, this gets easier after your 5th or 6th roach). Now tie in another bunch making sure that it's securely against the prior bunch of hair. You are trying for an effect such as Figure 2, so keep graduating the hair to the middle and then back down to the end. This row is 31" long.

(9) When you finish, tie a second row on another cord 32" long. The shorter length will be used inside the roach and the longer on the outside.

(10) Before tying in the porcupine hair you have to separate it according to length. The simplest method is to get a short glass, put some of the porcupine hair into it with the "roots" down and tap the bottom several times so that all of the hair is all of the way down into the glass. Now, starting with the longest hair, remove the hair from the glass and sort into groups that are within $\frac{1}{2}$ " in length of each other. Repeat this step until all of the hair is sorted.

(11) Now you want to tie another base string on the board and, as in former steps, wax the string thoroughly. Remember, you are trying for the effect shown in Figure 2, but with the porcupine hair the effect, from short to long, will be more extreme.

(12) Starting at the far right on the base string, use a pencil and make marks along it (starting about 2" in) 0", 9 $\frac{1}{2}$ ", 11", 12 $\frac{1}{2}$ ", 14", 17", 18 $\frac{1}{2}$ ", 20", 21 $\frac{1}{2}$ ", 31". Marks at "0" and "31" are the ends of the roach and between 14" & 17" is the middle where you'll want your longest hairs.

(13) Using the same knots as shown in Figure 3a & 3b, starting at the right end, tie in bunches of 14-16 hairs. Start with your shortest hairs and use half of each bundle; saving the other half for the other end of the roach. You may want to make additional marks on the base cord that correspond to the bundles you want to use at both ends.

(14) The tying process is now complete and you must now sew the hairs onto the roach base. Begin by pinning the sections onto the sides of the base beginning with the inside deer hair, then the porcupine hair and then the outside deer hair. Making sure that the hair pieces are centered, the pins must go through the tied hair at the knots and into the middle of the base.

(15) As illustrated in Figure 4, all of the rows are sewed on at the same time; Start from the center (between marks 14-17) and sew back. When you are finished, if you place the roach on the table the bottom of the roach base and the bottom of each row of hair should all rest evenly on the table top.

(16) When you finish sewing all of the hair to the roach base, wet the entire roach and wrap it carefully onto a "roach stick" (the bottom of a baseball bat will do just fine) with an elastic knee bandage or any similar material that will allow the hair to breathe. When dry remove the bandage and the roach should have a good form; if you aren't satisfied, wet again and repeat procedure.

(17) Wear with Pride!

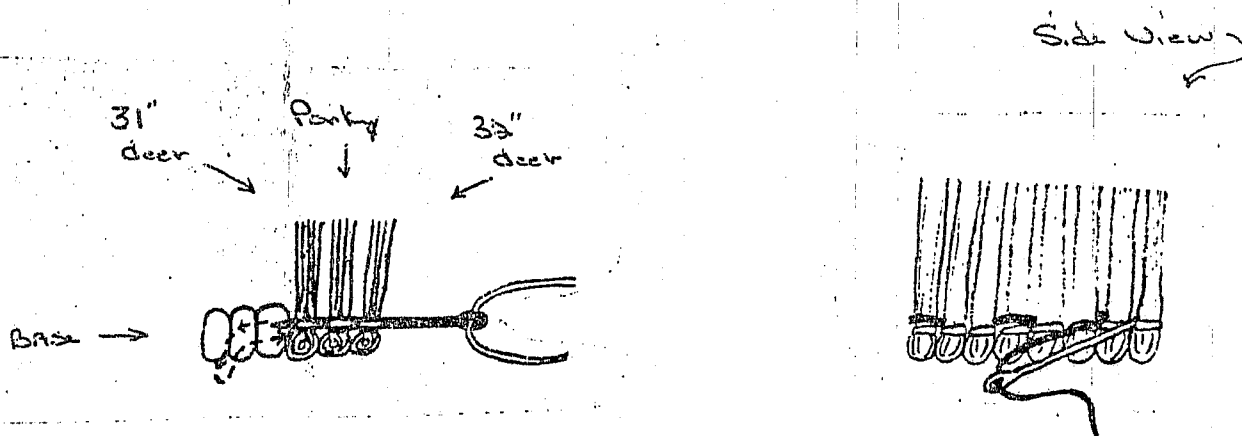


Figure 4