

MAKE & FIX IT

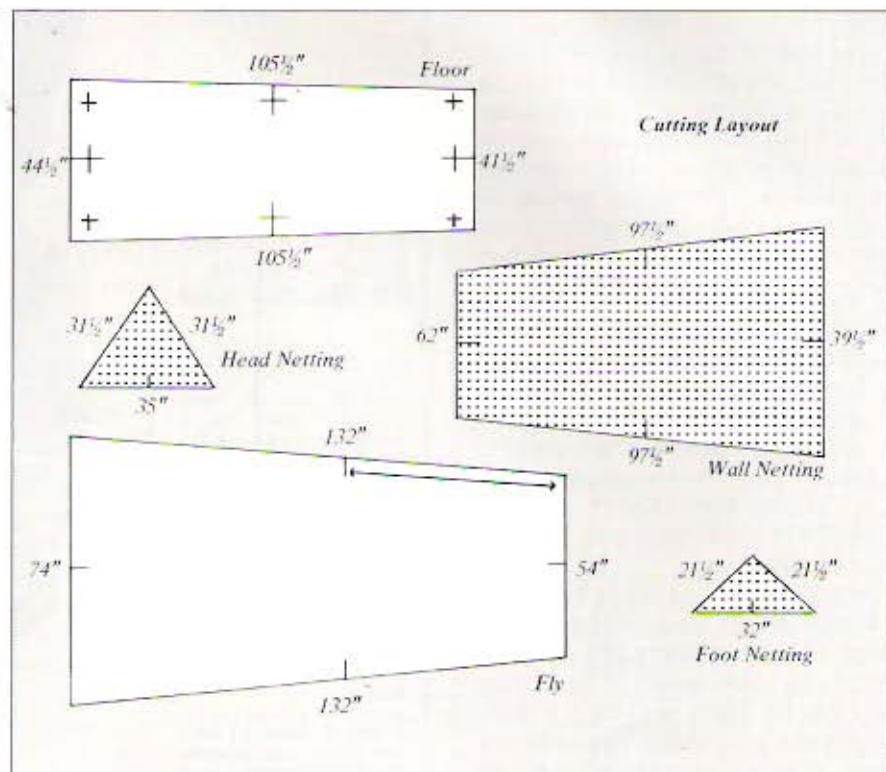
By Honey C. Hastings

Why sew your own equipment? To save money? – Well, yes and no. A better reason is the possibility that you may need equipment that isn't commercially available. This issue's project is just such an item: a one-person tent, and a super light one at that. It should weigh no more than 2 lbs., depending on the fabrics you use.

Some very experienced hikers refuse to carry a tent, preferring the lightweight and versatile nylon tarp when they bother to put anything between their down bags and the stars. Fine—if it suits their bodies and the climates they camp in. For myself, I always carry a tent. The New York-New England areas which I hike in can have rain unpredictably in any month and when it's not cold enough to need a tent the mosquitoes, flies and no-see-ums take over all the best camping spots. A tent is also reassuring protection against small animals and things that go bump in the night.

My one-person tent is primarily designed for mild weather, but it would give at least as much protection as a tarp if things turn cold. Basically, it is a mosquito netting tube tent with a waterproof floor. As a tube tent it is strung to a tree at the head and to a tree or down to the ground at the foot. Alternatively, an I-pole could be improvised at the site. The tent has six stake loops. Carry stakes or improvise according to your taste. I like to carry four 1 oz. stakes.

The tube tent is protected by a waterproof fly which extends 12 inches farther at the foot and two feet farther at the head. The fly can be rigged on the same stakes or on separate ones (better) or even secured by cord to rocks. Plastic sheeting or your poncho can substitute for the fly, but they aren't as efficient and the poncho must be supplemented with a piece of something waterproof to give enough length. Better to use your pon-



cho to cover your gear, which won't fit inside the tent with you.

Supplies needed:

- 8 sq. yds. of nylon mosquito netting
 - 3 yds. of 45 in. coated nylon taffeta or ripstop for floor
 - 7 1/2 yds. of 45 in. coated nylon ripstop for fly
 - 1/2 yd. pack cloth for reinforcement patches
 - two 30 in. zippers
 - 1 1/2 yds. of 1/2 in. nylon tape or webbing
 - 40 ft. nylon (parachute) cord
 - Seam sealer
 - Dual Duty thread (cotton wrap nylon)
- Equipment
- large cutting area such as an uncarpeted floor
 - carpenter's rule or several yardsticks
 - shears
 - straight pins
 - grommet kit
 - sewing machine

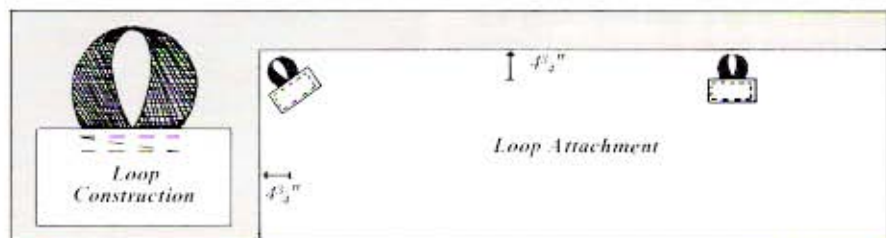
The list of supplies needs further comment. First, the netting comes in widths from 30 in. to 60 in. Get the widest available to reduce the number of seams.

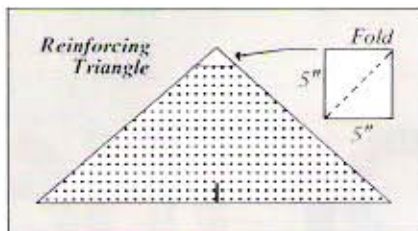
Check the cutting diagram when calculating yardage for a particular width of net. Remember to allow for 3/4 in. seams.

The floor fabric can be any weight from 1.9 oz. to 3.5 oz. per sq. yd., depending on your preference for light weight over durability. If it's available, the fly can be made of 1.5 oz. coated ripstop, since it is not subject to as much wear and tear. Otherwise, 1.9 oz. ripstop is fine.

Very lightweight (dress weight) nylon coil zippers are quite sufficient for this project and will help minimize weight. Unfortunately, the 30 in. length is difficult to find. Check a dressmakers' supplier or the department store with the best sewing section. If this fails, get the lightest weight zips at your backpacking store or mail order firm.

Laying out and cutting the large floor, netting and fly pieces is best done on a large bare floor. Move furniture if necessary and vacuum or sweep. With each piece, first join edges with flat fell seam as needed to give a large enough rectangle of fabric to cut the dimensions



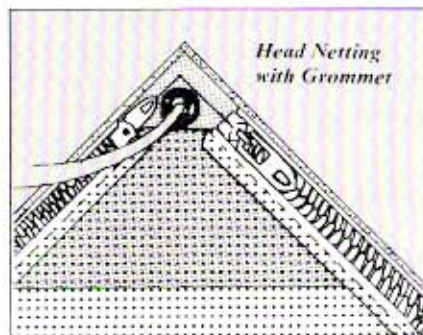
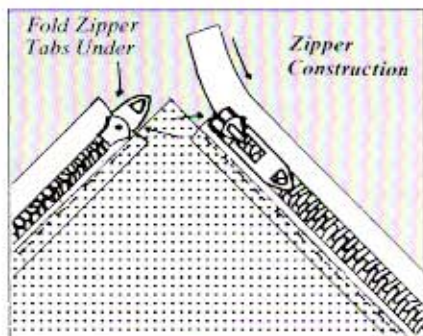


shown. To minimize the difficulty involved in cutting such big pieces, fold the fabric in half parallel to the length with the wrong (coated) side out. (Netting has no right or wrong side.) Pin the selvages together in several places to prevent shifting.

Draw the indicated measurements on the fabric, remembering to divide width measurements in half because of the folded fabric. A felt tip marker works well on the net but be careful of your floor. Cut through both layers at once. Note: All seams are $\frac{3}{4}$ in. wide.

MAKING THE TENT

1. Cut out floor piece, carefully following measurements. On the right (uncoated) side, mark the center of each side as shown.
2. Measure in $4\frac{1}{2}$ in. from each edge at the corners and along side centers and draw an X at each intersection. The reinforcements and looped webbing will be sewn on at these points.
3. Cut six 6 in. pieces of tape. Heat seal the cut edges. Form each into a loop and sew to a 2 x 4 in. reinforcement piece as shown.
4. Sew the loops and patches to the floor at each X mark as illustrated.



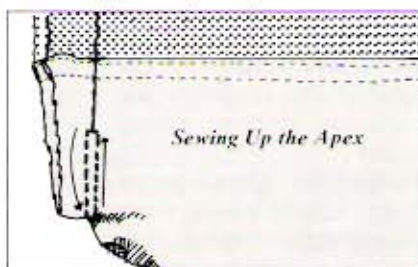
The Finished Product

5. Cut out the three netting pieces. Mark the centers. The foot triangle (the smaller of the two triangles) should be reinforced at the apex with a 5 in. square of pack cloth which is folded in half diagonally. Sew patch in place.
6. Sew netting to floor along the length of one side, using flat fell seam. Since the floor piece is longer, start by pinning the fabrics together at the center mark and pin in each direction. Be sure that the wider ends (head) of both pieces are together. Start first row of stitching $\frac{3}{4}$ in. from raw edges.
7. After sewing one side, pin and sew the other long side. Result will be a long open ended tube.
8. Matching center marks, attach foot triangle to floor piece at the narrow end of the tube by a flat fell seam.
9. Working from the inside of the tent, pin the equilateral sides of the foot to the tent body. Check by feel where one corner webbing is centered and start stitching as close to this point as possible without stitching the webbing itself. Sew up to the apex and down to the other corner webbing in one operation.
10. Fold over the seam allowance and stitch again using the hem seam. Trim off the excess floor fabric at the corners.
11. Fold in net edge at head of tent $\frac{3}{4}$ in. Pin zippers in place to net. The zips must be about 1 in. apart at the tent peak. The extra zip tape beyond the teeth should be folded under. Both pull tabs are at the top of the tent when the zippers are closed, but one should face inside the tent and the other outside.
12. Stitch zippers to net in one continuous seam. Remember to tack securely at start and finish.
13. Reinforce apex area with 5 in. square

of pack cloth folded diagonally. With zips open, stitch patch to inside of tent on the zip stitching line.

14. Attach head triangle to floor by flat fell seam.

15. Fold in triangle and pin in place to closed zippers. Open zips. Stitch.



16. Stitch front and sides together below zips as in step 9, using plain seam. Trim off extra fabric.

17. Cut out fly. Mark as shown on wrong side.

18. Using 2 in. sq. patches, sew reinforcements: $1\frac{1}{4}$ in. in from the edge at each corner and side marks.

19. Hem fly all around with $\frac{3}{4}$ in. hem. Sew corners in box pattern as pictured.

20. Attach grommets within the hem to eight areas reinforced in step 18. Attach grommets to the apex reinforcements at the head and foot of the tent.

21. In well-ventilated area, apply seam sealer to insides at seams in floor and fly.

22. Cut off 25-30 ft. of cord and seal the ends. String through the tent, tying a lumpy knot on the insides of the head and foot grommets. When pitching the tent with the fly, string cord through the head and foot grommets of the fly. Tie knots on the tent side of the grommets to secure fly and prevent rain from running down into the tent.