1. Stitch this line through all 4 layers of cloth first.

2. Then, open the 2-layer mask like a butterfly, with this side up.

3. Fold the two layers over this line to create the sleeve for the metal strip.

Metal Strip Goes Here

4. Then stitch this line across the whole mask. You're stitching through the two layers of mask, plus the two layers from the folded over part -- Not 8 layers!

5. Slip the metal strip into the sleeve and center it.

Strap

6. On each side, fold (2 layers) over this line, and stitch to finish the edge.

7. Attach the Strap to one side where shown.

8. Attach the Velcro "hooks" to the other side of the mask.

9. Attach the Velcro "Loops" to the strap to fit wearer's face. You can make this adjustable with a longer piece of the "Loops"

6" x 0.5" strip of sheet aluminum (like roof flashing)

Materials:

1 Piece of 1" wide sewing elastic about 14" long.

1 Strip of Velcro Loop side, 1" wide and 3" long.

1 Square of Velcro Hook side, 1" x 1".

4 pieces of cloth 6" x 8". I used cotton flannel because it's porous enough to breath through, but tightly woven enough to act as a decent filter.

1 bendable metal strip -- aluminum is best -- I used aluminum roof flashing. It should be thick enough to hold a bend, but thin enough that you can cut it with scissors. You could cut the top and bottom off an aluminum soda can, then slice vertically up the side to make a rectangle of thin aluminum sheet. You can get 4 good strips from one can. Stack six or eight of these strips like a long thin deck of cards. Lay out a 6" long piece of plastic packing tape, sticky side up. Place the stack along the middle of the tape and fold the sides over to laminate your strips of aluminum together. Trim the ends round, making it 6" long.