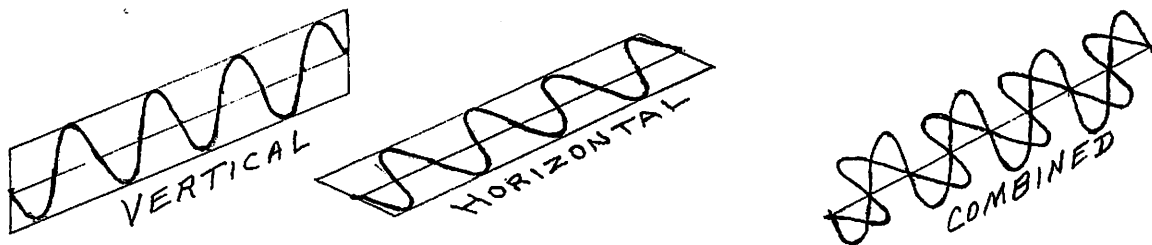
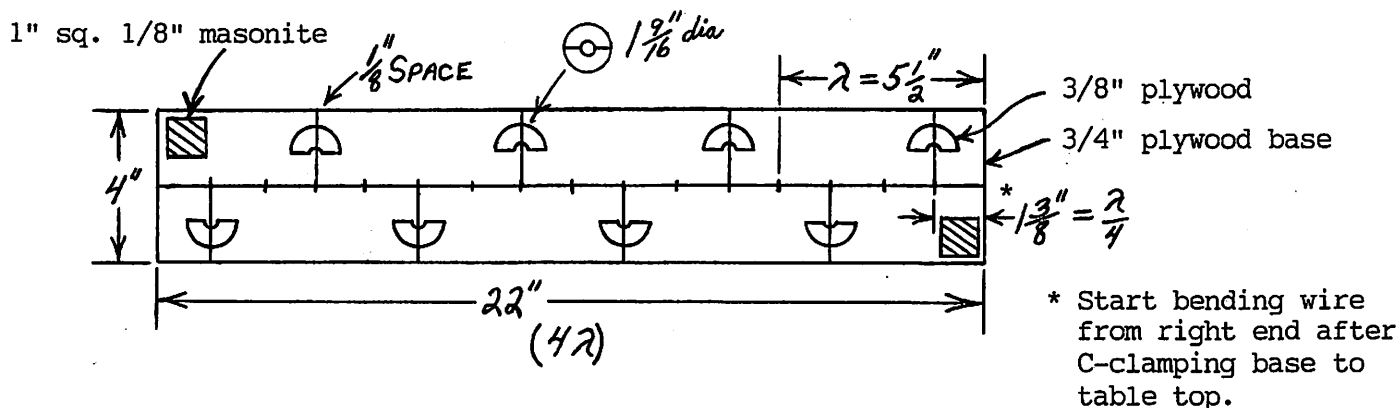


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 Wire Waves I - a teaching model (and the necessary jig). You need two wire waves.



Materials 3/8" plywood, 3/4" plywood, 1 3/4" hole saw and drill press, Elmer's glue,
 for jig: 16 #18 x 1" wire brads, aluminum ground wire (RadioShack #15-035) -
 40 3/4" straight

Plan for jig:



- Uses:
- (a) the 3-D "picture" of an electromagnetic wave (E & B)
 - (b) transverse waves, planes, and polarization
 - (c) the polaroid filter(s)
 - (d) polarization by reflection (and sunglasses)
 - (e) laser light - coherent and collimated
 - (f) interference $\frac{I}{\lambda}$ - constructive and destructive (phasing)
 - (g) double slit diffraction and interference (the pattern)
 - (h) eye of the needle and Poisson's spot

Additional materials: wire cutters, 6 ft. rule, hammer, meter stick (English scale), pencil, kleenex, sandpaper, 2 1" x 1" pieces of 1/8" masonite for corners to be clamped, 2 C-clamps (3"?)