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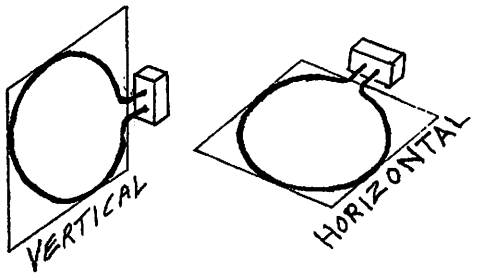
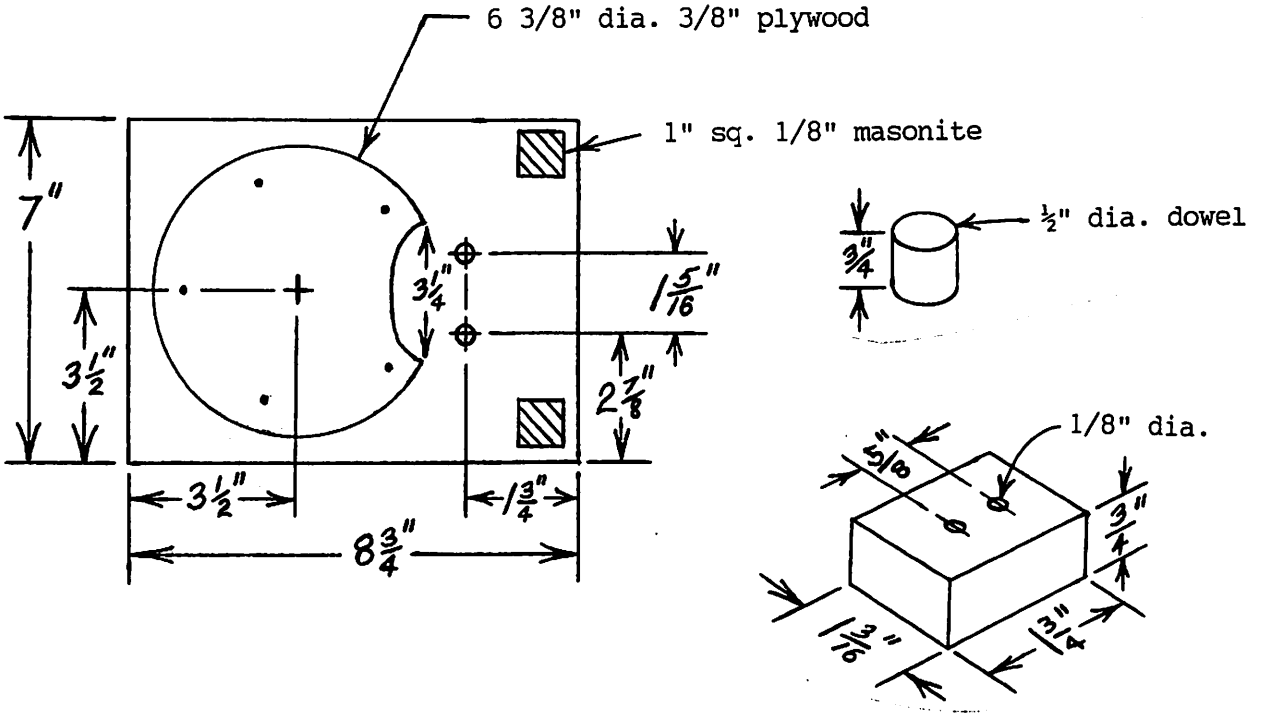
Wire Loop I - The magnetic field around a wire, a loop, and a coil -
a teaching model (and the necessary jig).



Materials for jig: 3/4" plywood, ½" dia. dowel, 3/8" plywood, Elmer's glue, aluminum ground wire (Radio Shack #15-035) - 24¼" circular, 5 #18 x 1" wire brads, wire cutters, English scale cloth tape measure, hammer, pencil, kleenex, #120 sandpaper, 2 1" x 1" pieces of 1/8" masonite for corners to be clamped, 2 C-clamps (3"?), 31/64" or ½" drill bit, 3/4" clear pine, 1/8" drill bit, compass,

Plan for jig:



Uses: (a) the 3-D "picture" of the magnetic field B around a wire, a loop, and a coil using the standard left hand rules of electron flow to determine polarity

(b) to help explain magnetic field B directions using model vector arrows, especially head ⊙ and tail ⊗