

FIG. R10

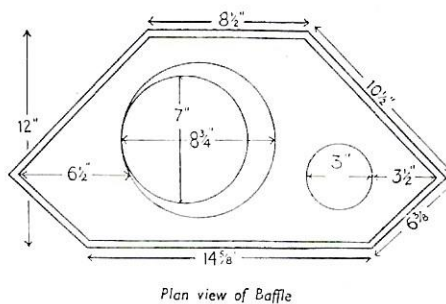
TWIN TREBLE ASSEMBLY FOR THREE-SPEAKER SYSTEM

A crossover between 400 and 1,000 c/s is satisfactory with a 10" or 8" unit for the middle and upper registers plus a 3" to improve the extreme top. The third speaker is connected in parallel with the middle speaker with capacitor of 4 Mfd in series with the voice coil of the small unit (10-15 ohms).

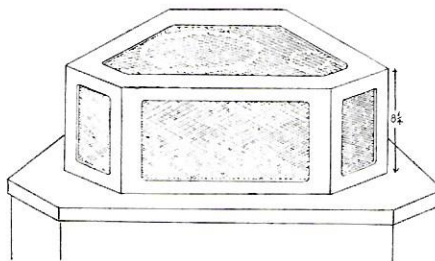
Wharfedale 8" or 10" FS and CS units are suitable for use as middle speakers. The Super 3 gives good results as the third speaker.

Non-directional and natural results are achieved by horizontal mounting on the lines of the diagrams shown. Both units face upwards and dust should be excluded by a layer of fine cotton or muslin. The baffle openings shown will suit 8" or 10" middle speakers and 3" tweeters.

The sides and back of the cabinet must be left as open as possible. Anodised aluminium mesh is a suitable covering.

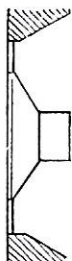


Plan view of Baffle



TWO-SPEAKER SYSTEM

The above arrangements complete a good 3-speaker system, but quite satisfactory results are often possible with only two units. If the bass speaker is enclosed in a reflex cabinet and a quarter section 800 or 1,000 c/s crossover is used, an 8" or 10" treble speaker can be mounted on an open baffle in $\frac{3}{8}$ " plywood, size 14" x 12". If a 400 c/s crossover is used, the baffle should be 3 or 4 inches bigger.



WALL MOUNTING

As a solid wall makes a perfect baffle, an opportunity of using one should not be ruled out. The diagram shows a suitable method of mounting on a small sub-baffle. Any boxing-in behind the speaker should be rigorously avoided. Bass units perform best if placed near the floor but full range types sound more natural at a height of 3 or 4 ft.

For the floor space used and low financial outlay involved, we have never heard more impressive sound than comes from this concrete column. There are, of course, solid reasons why these rigid enclosures give such excellent results.

The absence of panel and structural resonance avoids absorption of energy at very low frequencies and therefore improves bass response; it avoids mid-frequency coloration, which in turn improves transient response and allows the HF end to come through clearly.

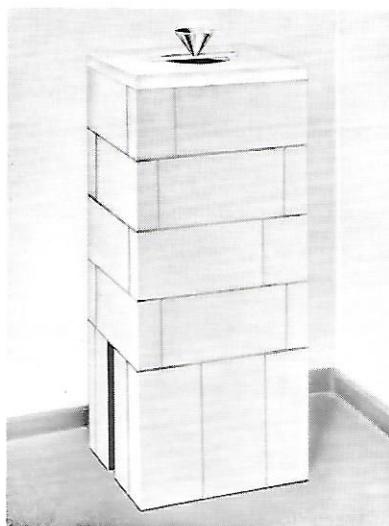
The coloured concrete blocks measure 12" x 6" x 2", weigh 10 1/2 lb. each, and are obtainable from builders' merchants. The entire structure weighs about 2 1/2 cwt.; but if fitted to brick wall or corner up to 50% of the blocks can be omitted and the twin ports arranged to clear the skirting-board.

A column 36" high is satisfactory with an acoustic filter inserted one-third of the way up. This takes the form of one piece of plywood with seven slits 9" long and 1/16" wide, fitted across the column between the slabs.

The baffle on which the speaker is mounted must make an air-tight fit to the top of the column, which is lined with 1" absorbent material above the filter.

The finished column is easily painted or papered to match the walls of the room, or may be covered by thin plywood panels.

FIG. R11 CONCRETE COLUMN



Concrete column 3 cu.ft.
Outside dimensions 17" x 15" x 36".
Twin ports 12" x 1".
Suitable for 8" and 10" units.