



FIGURE 3

THIS KILN IS OF THE FORCED DRAUGHT EXTERNAL FAN COMPARTMENT TYPE. THE AIR IS BROUGHT TO THE REQUIRED TEMPERATURE & HUMIDITY BY THE HEATER "F" WHICH CONTAINS STEAM PIPES AND SPRAY JETS. THIS CONDITIONED AIR IS FORCED BY THE FAN "G" ALONG THE CENTRAL INLET DUCT "J" & ENTERS THE KILN THROUGH THE OPENINGS AT FLOOR LEVEL. AFTER CIRCULATING ROUND THE TIMBER, THE AIR ENTERS THE SIDE RETURN DUCTS "K" & "L" & RETURNS TO "F" FOR RE-CIRCULATION. AS REQUIRED, EXHAUST AIR IS EXPELLED THROUGH THE OUTLETS "M" & FRESH AIR IS ADMITTED AT THE SIDE OF THE HEATER.

that the m.c. in 1-in. thick softwood boards will be reduced to 20 per cent. within two to three months, provided they are stacked in the spring, and 2-in. thick pieces will dry to a similar amount within three or four months. Hardwoods take longer to season, thus 1-in. pieces, if piled in the autumn, will take about nine months to dry to 20 per cent. m.c. and 2-in. thick hardwoods will take about a year to dry to the same amount. Any further reduction in m.c. will, of course, take longer and depends upon the store or kiln to which the timber is transferred.

The advantages of the process of air seasoning are : (1) It is relatively cheap

for small supplies; (2) it requires little attention; and (3) defects due to the process are comparatively small. The disadvantages are : (1) The rate of drying is very slow; (2) it cannot be rigidly controlled; (3) even under favourable conditions the m.c. cannot be reduced to that required for certain internal joinery; (4) large stacks of timber require considerable space; (5) much capital is unproductive for a lengthy period; and (6) damage to the timber may be caused by fungi and insects.

2. *Kiln Seasoning or Artificial Seasoning.*—This method is employed on a vast scale, as it ensures rapid drying of the timber to any required m.c. under