bottom of the second pot hole with round shape having a diameter of 5 cm. At the bottom of the first pot hole in the base, a hole of diameter 14 cm is made and a grate (C.I.) is placed over it. For the entry of secondary air to the first pot hole, 1 cm dia holes are made with a triangular pitch of 3 cm on the inner side of first pot hole and also on the tunnel projecting into the second pot hole. The efficiency of double pot improved chulha is 26%. The cost of the unit is Rs.600/-.

(iii) BIOMASS GAS STOVE

The biomass gas stove has been developed for small scale thermal application in agriculture and allied industries. This stove widens the market for agro wastes, makes possible a higher efficiency and in some cases reduces the time and investment, all by comparison with combustion. The biomass gas stove is a natural convection type updraft gasifier consisting of a cylindrical body made of clay, sand and paddy husk with its top open and bottom closed. The diameters and height of the stove are 290 mm and 630 mm respectively. This can be reduced depending on the applications. An iron grate to hold the biomass is fixed at 50 mm from the base of the reactor. The bottom is provided with an air opening cum ash removal door. At the top, provision is made to place vessel for cooking, boiling etc. The biomass viz., wood chips, agricultural residues like coconut shell, groundnut shell, arecanut husk, tree barks and leaves can be used in this biomass gas stove. The feedstock materials used should preferably be in the form of small chips, splinters and small logs. The fuel consumption is 5 kg/h and its thermal efficiency is 23%. The cost of the unit is Rs.1000/-.