

ABSTRACT

"Method and apparatus for continuous drying in superheated steam"

Apparatus for continuous drying of moist materials
5 in superheated steam comprises a drying enclosure 10, open-
ended inlet and outlet ducts 11, 12 communicating with the
enclosure, and conveyors 13, 14, 15 for conveying the material
to be dried along the inlet duct, through the enclosure and
along the outlet duct. Superheated steam is generated in the
10 enclosure from the moisture in the material 19 being dried by
circulating the initial gas within the enclosure between a
heat source 23 and the material, and/or by the injection into
the enclosure of superheated steam from an external source.
The inlet duct 11 and outlet duct 12 both extend downwardly
15 from the enclosure 10 and a vent duct 22 from the enclosure
has an outlet 26 normally at a level midway along the two
ducts. In use, superheated steam tending to pass downwardly
along the ducts meets external air tending to pass upwardly
along the ducts and forms within each duct a temperature and
20 density differential stratification layer 21. These layers
act as barriers to the escape of steam from the enclosure
while at the same time permitting the free conveyance of
material along the ducts and into and out of the enclosure 10.

(Refers to Figure 2)