

A plant for producing cast iron and/or sponge iron contains as minimum one reactor with fluidized bed designated for loading finely ground ore, which feeds pipeline for reducing gas leading to the said reactor with fluidized bed, discharge pipeline for used gas, getting out from the reactor with fluidized bed and facility for unloading reduced product, being produced in the reactor with fluidized bed. The discharge pipeline for blast-furnace gas of shaft furnace and discharge pipeline for the reactor with fluidized bed are part of the mechanism for purification such as scrubber, and then of heating device, from which the feeding pipeline for reducing gas of the reactor with fluidized bed gets out.