

is much greater than that of Cast-iron; hence for long pillars Wrought-iron is preferred. Cast-iron is not suitable for tie-bars, on account of the flaws in the castings and its small tearing weight, which is 15,680 pounds per square inch, and its safe working load is about one-sixth of this. While the tearing weight of Wrought iron is 54,000 pounds per square inch, and its safe working load is one-fourth of this; hence Wrought-iron is