

carried over such bridges upon a single truck, thus throwing a heavy and concentrated load upon each point as it passes. Mr. Stoney states that a wagon with a crank-shaft of the British ship "Hercules," weighing about forty-five tons, was refused a passage over Westminster iron bridge, for fear of damage to the structure, and had to be carried over Waterloo bridge, which is of stone; and he says that in many cases large boilers, heavy forgings, or castings reach as high as twelve tons upon a single wheel. The report of the American Society of Civil Engineers, above referred to, advises that the floor system be strong enough to carry the following loads upon four wheels: Class A, 24 tons; Class B, 16 tons; Class C, 8 tons; though it is stated that these do not include the extraordinary loads sometimes taken over highways.