

and multiply it by .785. Then multiply by the length inside and divide by 277½. This will give the number of gallons in a barrel.

Multiplying the number of gallons by 10 will give the number of lbs.

Weights of Steel—

1 inch steel weighs	about 2 lbs 2 ounces per foot.
2 "	1 lb, 11 "
3 "	1 " 4 "
1-2 "	12 "

Weight per cubic foot—

Water	62½ lbs.
Granite	120 to 140 "
Quartz	165 to 168 "
Limestone	168 to 170 "
Slate	165 to 174 "
Whit	165 "
Quartz, with 15 per ct pyrites	184 "
Gold	1206 "
Hematite	267 "
Limonite	213 "
Zinc blend, (Black Jack)	235 to 250 "
Iron pyrites	286 to 300 "
Galena, (Lead ore)	425 to 470 "
Dry white pine, lightest wood	24 "
Iron	487 "
Mercury	848 "

Measurements for practical use—

Cubic ft. per ton, not broken.

Clay and earth, boulder clay	14 cu. ft.
Quartz and granite	13.5 "
Quartz with 15 per ct. pyrites	12.5 "
Limestone and syenite	13 "
Limonite	9 "
Hematite	7.5 "
Zinc blend (black jack)	8.5 "
Iron pyrites	7 "
Galena	4.7 "
Loose surface soil	20 to 22 "

Crushing load per square inch—

Working load ½ of crushing load.

Black spruce	5700 lbs	1900
White spruce	4500 "	1500

Melting points in degrees Fahrenheit.—

Tin	440
Lead	626
Zinc	680
Aluminum	1400
Copper	2100
Cast iron	2190