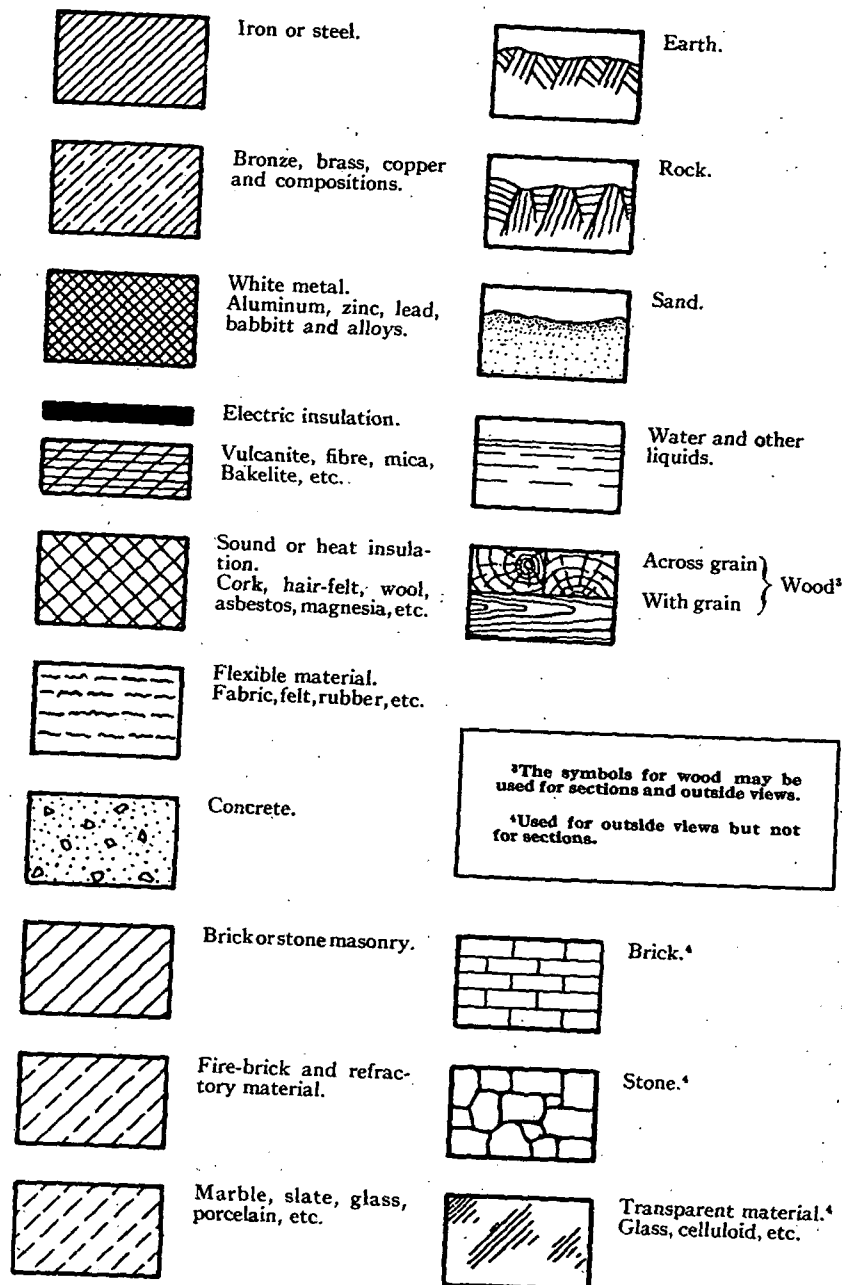




SYMBOLS FOR HEAT AND THERMODYNAMICS⁵

General Principles

1. It is urged that a complete table of symbols and units used by an author be included at a convenient place in each book, chapter, or paper.
2. In most cases the same symbol shall be used, regardless of systems of units. Thus v is specific volume, whether cc per gram, cc per mol, cu ft per lb, etc.
3. In cases where more than one system of units is used in a discussion, a single symbol may be used, with addition of subscripts, superscripts, or indices to denote units other than the primary one, such as, p , p_t , p' , p'' .
4. The same symbol should be used for a given concept, regardless of the number of special values which occur, and subscripts or superscripts should be used to designate them.
5. Letter subscripts should be used to denote values under special conditions or at special states, such as:

Specific heat at constant pressure.....	c_p
Specific heat at constant volume.....	c_v
Thermal efficiency.....	e_t
Mechanical efficiency.....	e_m

6. Numerical subscripts should be used to denote values at designated points in an apparatus, process or cycle, such as:

Initial pressure.....	p_1
Final pressure.....	p_2
Weight of a major item.....	W
Weights of auxiliary items.....	W_1, W_2, W_3

7. In order to increase the clarity of printed matter, which is practically always Roman, symbols alone or in equations should be printed in Italics.

8. Where possible, capital letters denote total quantities and small letters denote specific quantities, or quantities per unit. Thus,

S may be entropy of any mass, and
 s may be entropy of unit mass.

General Symbols

Acceleration due to gravity. Internationally adopted standard value 980.665 cm/sec² or 32.1740 ft/sec.²..... g_0

Acceleration due to gravity. Where it is not necessary to distinguish between the standard value and the exact local value..... g

Time..... t

Angular Velocity..... ω (omega)

Velocity..... V

Revolutions per Unit Time..... N or n

Length, Distance..... L

Diameter..... D

Radius..... r

Area, Surface..... A

Symbols for Force, Weight, Work, Power

Force, Total Load..... F

Pressure; Absolute Pressure; Gage Pressure; Force per Unit Area..... p

Mean Effective Pressure..... p_m

Total Quantity of Fluid, Water, Gas, Heat; Quantity by Volume..... O

Volume Rate per Unit Time; Rate at which Quantity of Material passes through a Machine; Quantity of Heat per Unit Time; Quantity of Heat per Unit Weight..... q

Total Weight..... W

Weight Rate; Weight per unit of Power; Weight per unit of Time..... w

Mass, W/g m

Total Work..... W

Work per Unit Weight..... w

Power; Work per Unit Time..... P

Efficiency..... e or η (eta)

Symbols for Properties

Molecular Weight..... M

Concentration; Amount of Particular Constituent per given amount of Mixture..... C

⁵Proposed symbols prepared by Sectional Committee on Scientific and Engineering Symbols and Abbreviations.