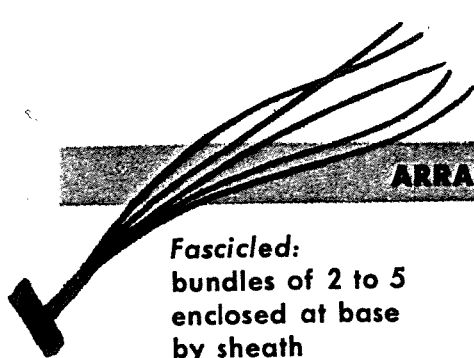
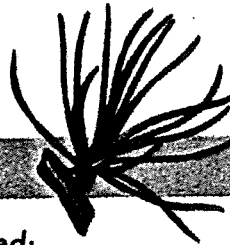


LEAVES may be deciduous (shed annually), or they may be evergreen or persistent (remaining on tree one to many years). Most cone-bearing trees and some broad-leaved trees are evergreen. Leaf arrangement may be obscure at growing tips, where leaves may not have reached full size. Leaves of some trees bear stipules (not shown), small leaflike appendages at base of petiole.

ARRANGEMENT



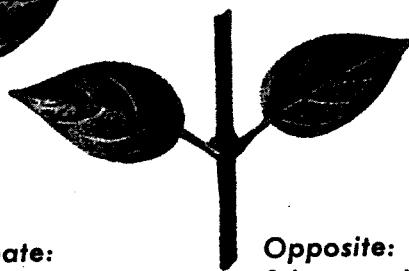
Fascicled:
bundles of 2 to 5
enclosed at base
by sheath



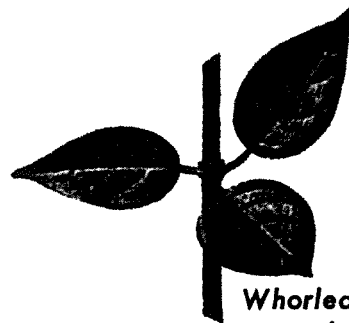
Clustered:
in false whorls
at tips of spurs,
without sheath



Alternate:
a single leaf
at each node

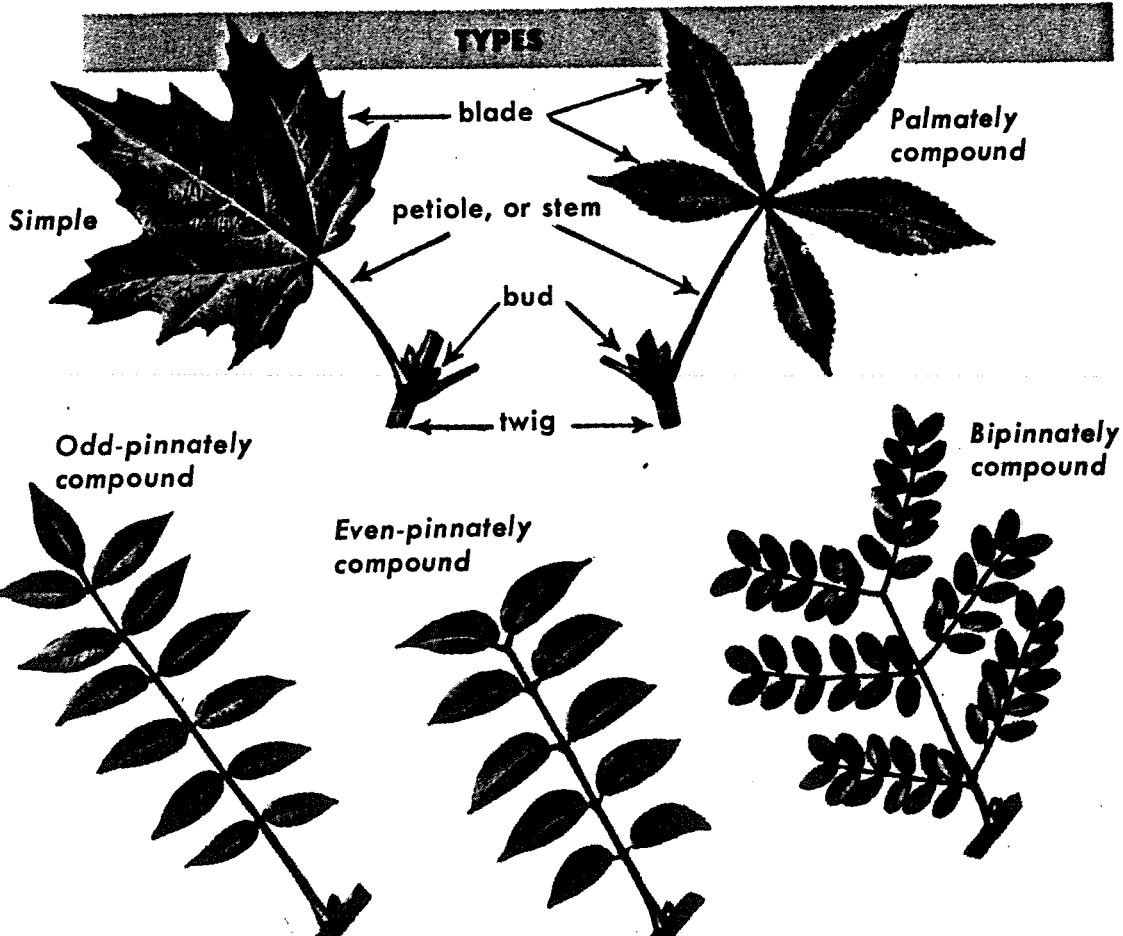


Opposite:
2 leaves at
each node



Whorled:
more than
2 leaves at
each node

TYPES



Simple

Palmately compound

Odd-pinnately compound

Even-pinnately compound

Bipinnately compound

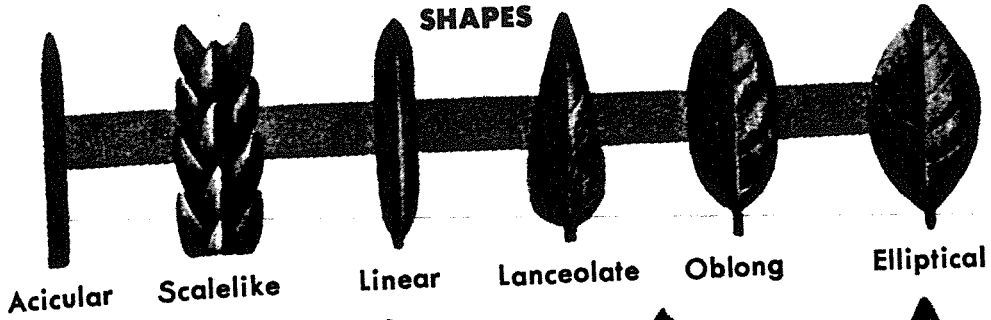
blade

petiole, or stem

bud

twig

SHAPES



Acicular

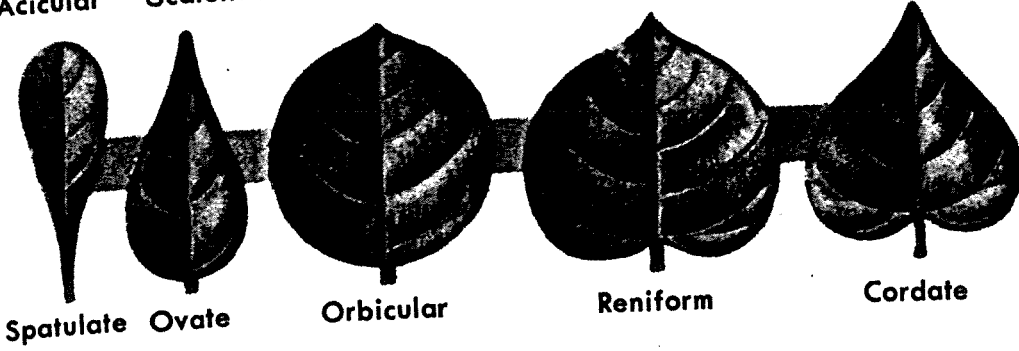
Scalelike

Linear

Lanceolate

Oblong

Elliptical



Spatulate

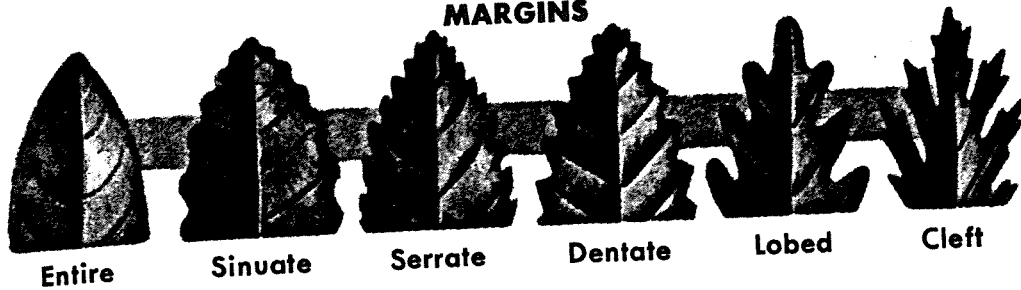
Ovate

Orbicular

Reniform

Cordate

MARGINS



Entire

Sinuate

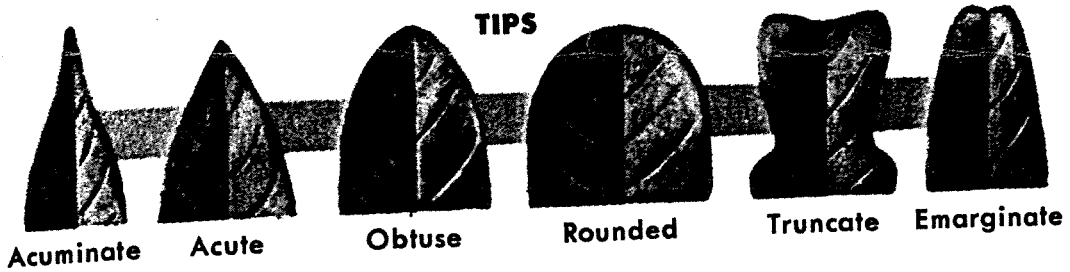
Serrate

Dentate

Lobed

Cleft

TIPS



Acuminate

Acute

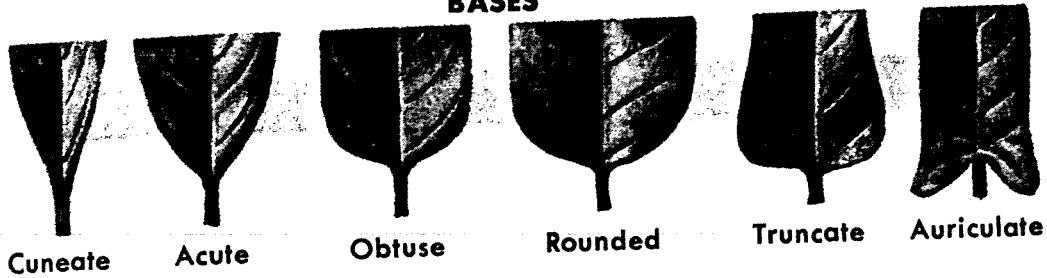
Obtuse

Rounded

Truncate

Emarginate

BASES



Cuneate

Acute

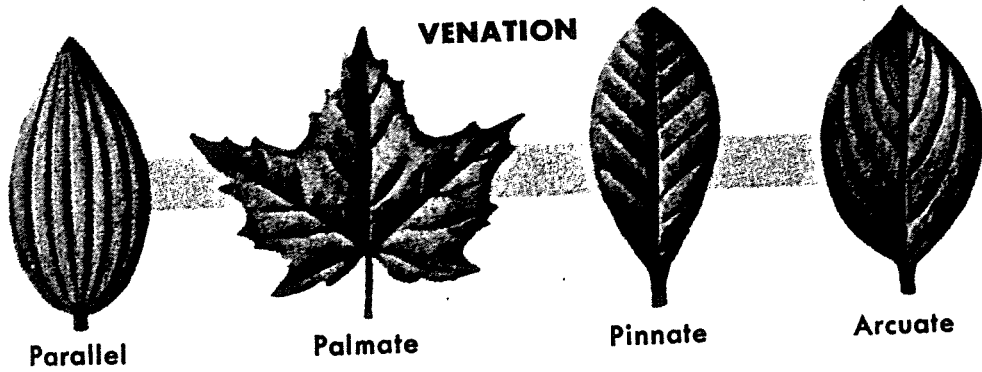
Obtuse

Rounded

Truncate

Auriculate

VENATION



Parallel

Palmate

Pinnate

Arcuate