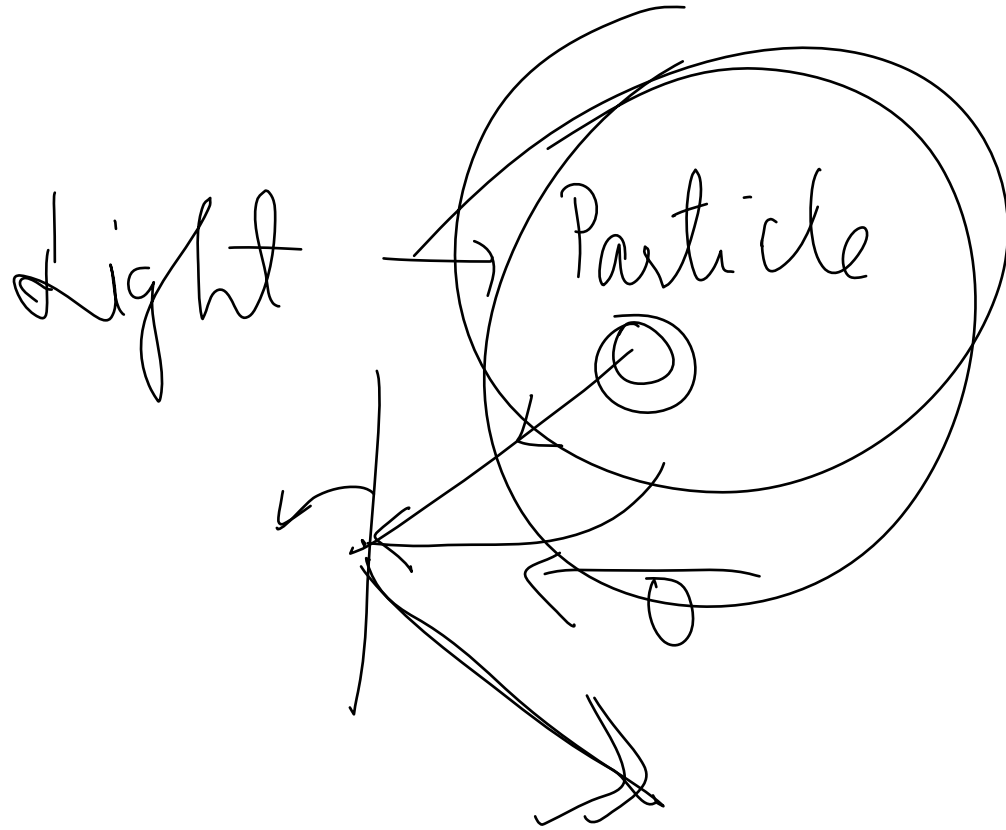
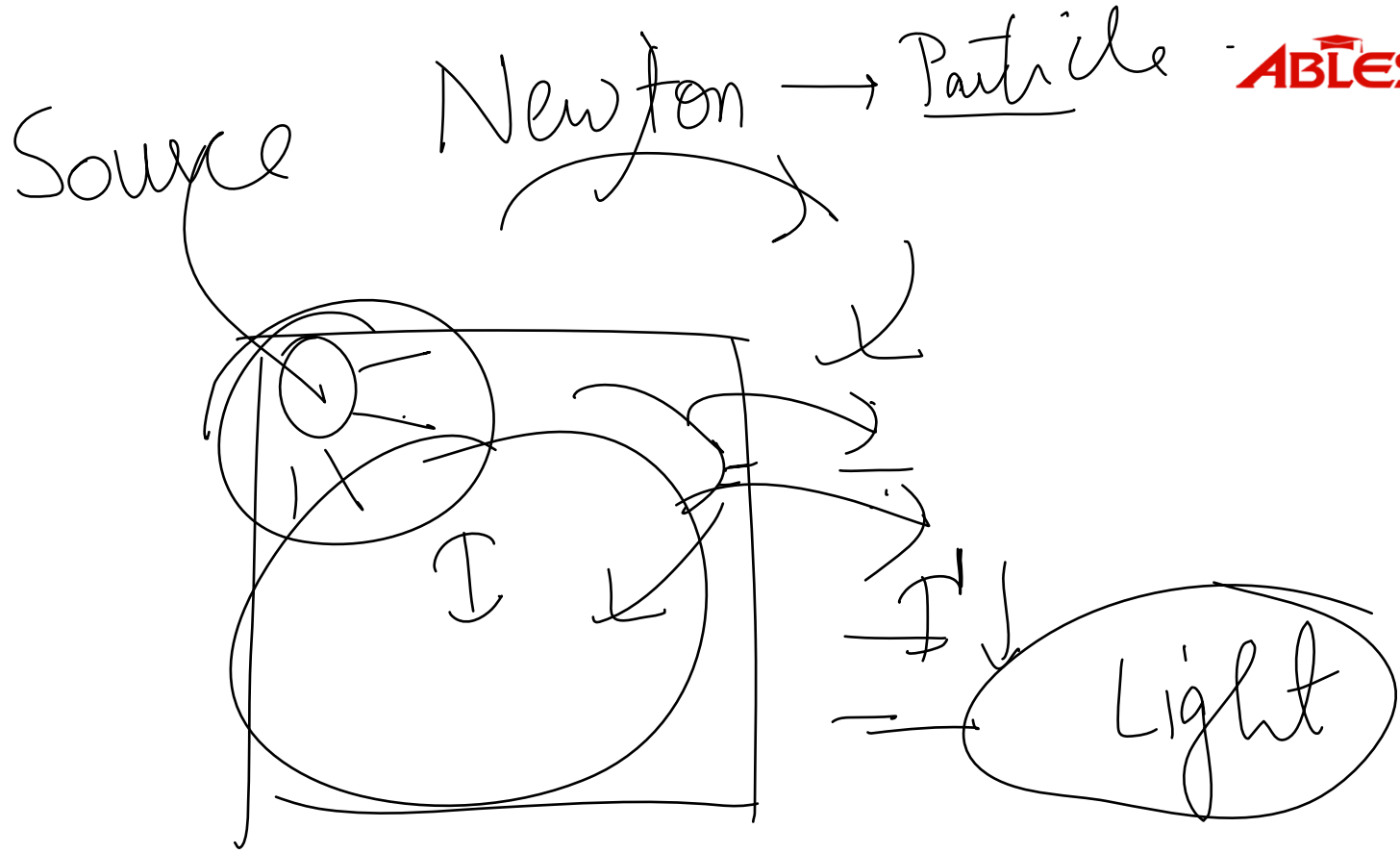


Particle Nature

Wave Optics





Huygen's

YDSE (1800)

Maxwell's theory

Newton's Corpuscular theory :

Light is made up of very small discrete particles which travel in a straight line and possess impulse/ momentum

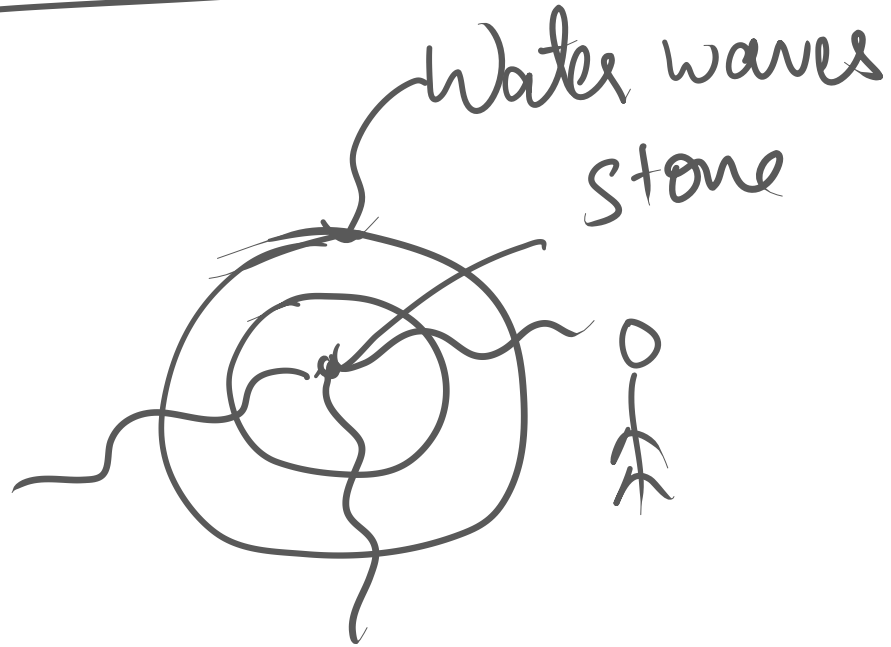


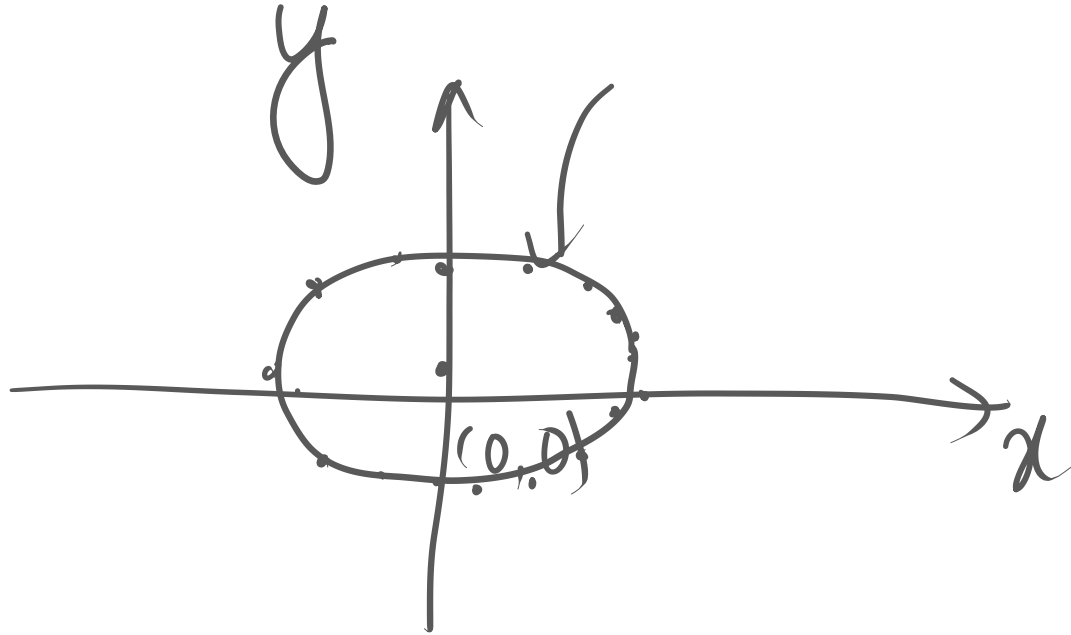
Huygen's Principle :

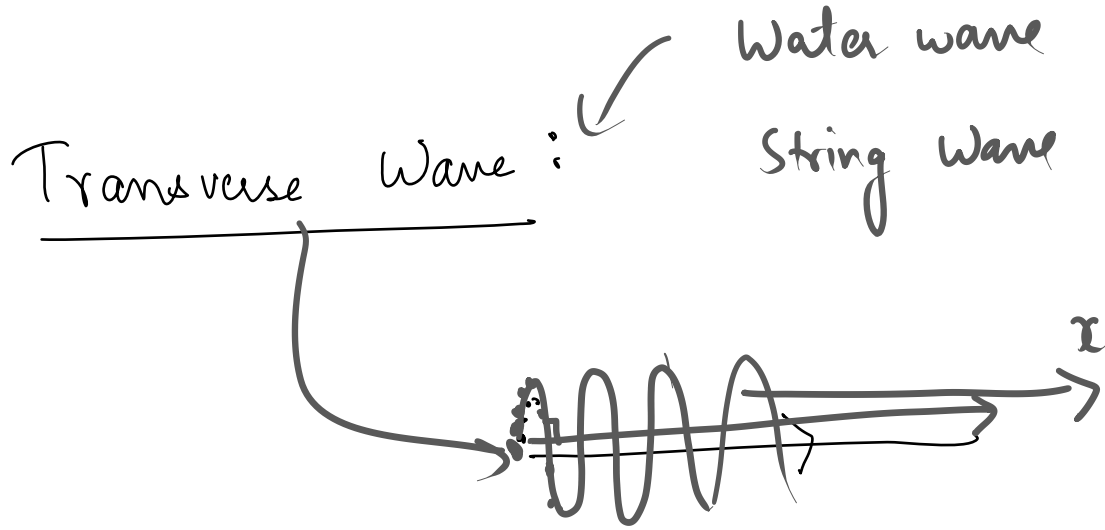
Every point on wavefront can be considered as a source of secondary wave.

Locus of all points which has the same phase.

Point Source :





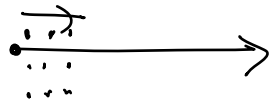


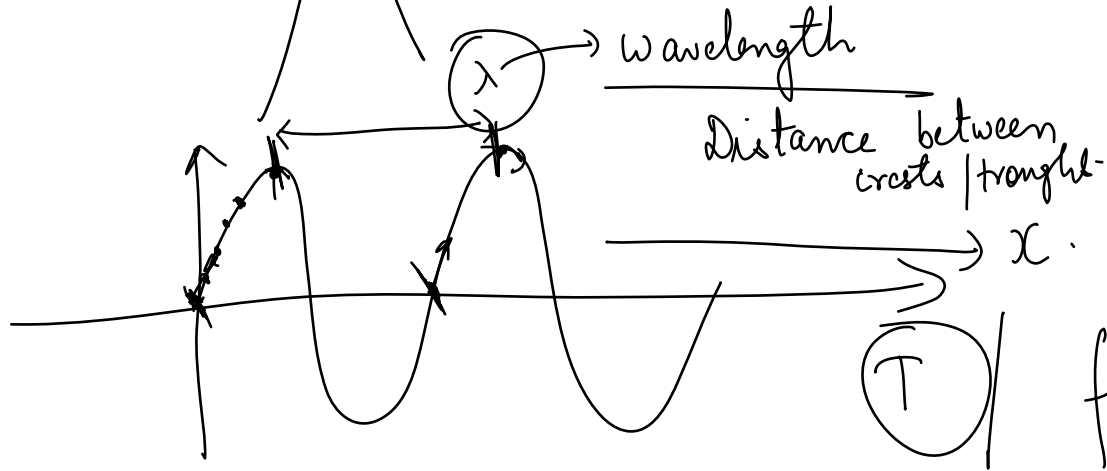
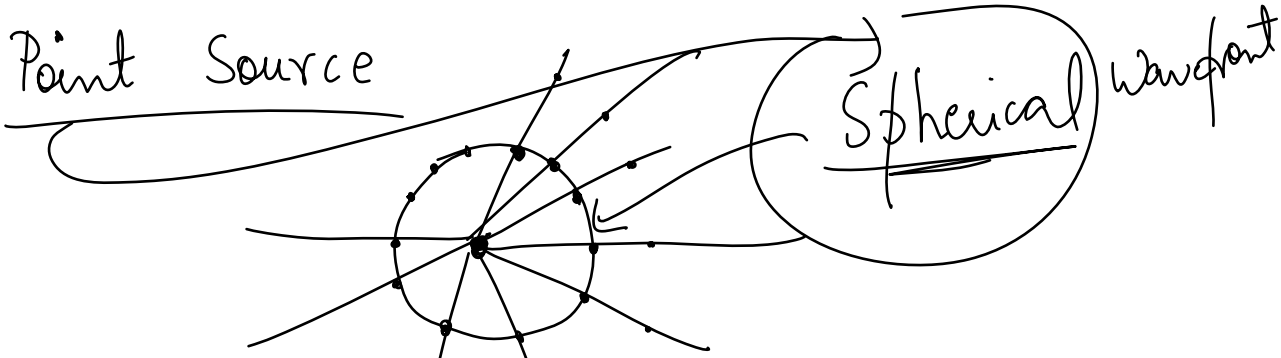
Particles of Medium vibrate perpendicular to the direction of propagation.

Longitudinal Wave

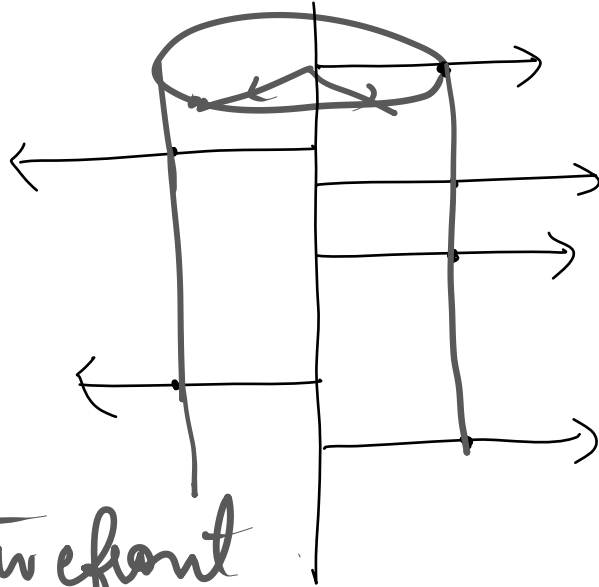
particles vibrate along the same direction of propagation of wave

Sound wave



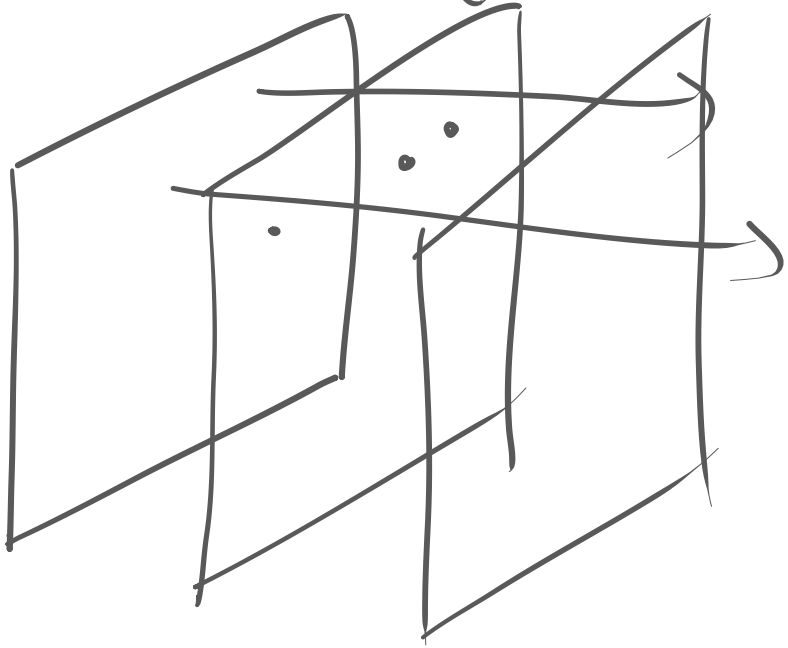


Line Source :

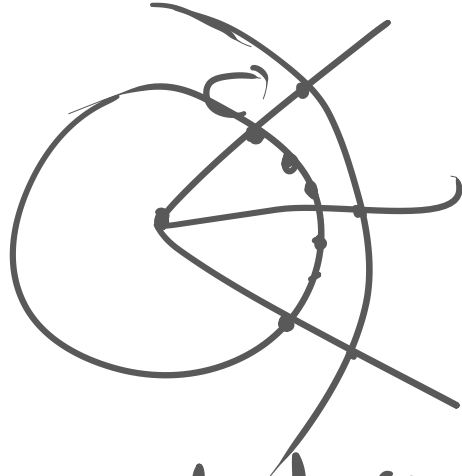


Cylindrical
Wavefront

Plane Source Plane Wavefront



Huygen's Principle



Every point on wavefront can be considered as
a source of Secondary wave !