

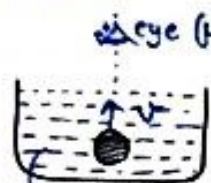
Case-2: object is in Rarer medium

- $d_{app} = h\mu$ (from surface)
- Shift = $h(\mu - 1)$
- Actual height = h (from surface)

चिड़िया अपने पूरे जीवन में मछली को नहीं उसकी image को देखती है। (Case-1).

मछली अपने पूरे जीवने में चिड़िया की image देखेगी। (Case-2)

⑥ velocity वाला type, दूरी की जगह

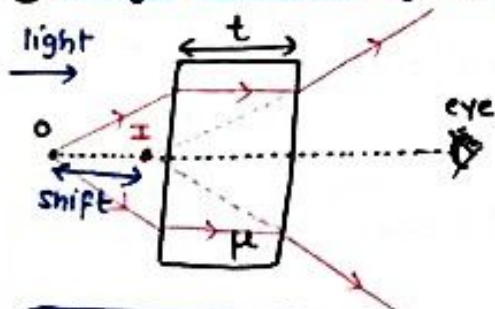


- object ki speed bahar se dekhne par v नहीं dikhai degi Because of optically illusion.

• किस प्रकार से बाहर से देखने पर image

$\frac{v}{\mu}$ दूरी पर dikhai deti hai usi Prakar se velocity Bhi $\frac{v}{\mu}$ se appear hogi.

⑦ Image formation by glass slab.

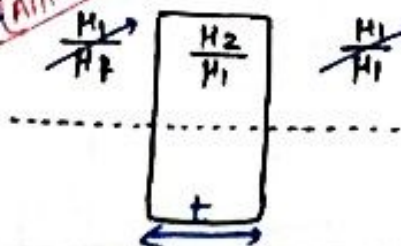


$$\text{shift} = t \left[1 - \frac{1}{\mu} \right]$$

this formula is valid when glass ke both side air.

• Shift always in the direction of light

* Example

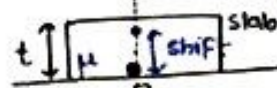


$\frac{\mu_1}{\mu_2}$ air बन गया ($\mu=1$)

$$\text{shift} = t \left[1 - \frac{\mu_2}{\mu_1} \right]$$

④ Microscopic problem -

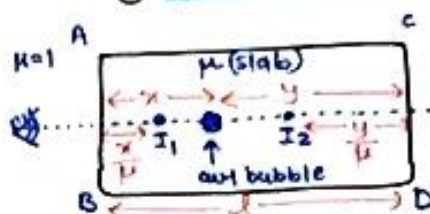
↑ upar shift karua padega to focus again.



$$\text{shift} = t \left[1 - \frac{1}{\mu} \right]$$

[NEET PYS]

⑤ Air bubble inside the glass slab



$$l = x + y$$

- observer ko AB side se bubble ki image $\frac{x}{\mu}$ पर दिखेगी from surface AB. and surface CD se dekhne par surface CD se $\frac{y}{\mu}$ distance par dikhegi.

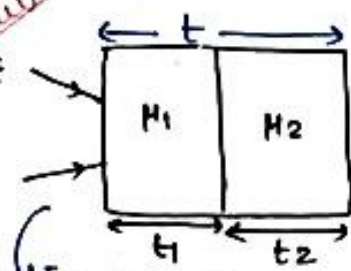
* Ques



Total shift -

$$t_1 \left[1 - \frac{1}{\mu_1} \right] + t_2 \left[1 - \frac{1}{\mu_2} \right]$$

* Ques



$$\text{shift} = t \left[1 - \frac{1}{\mu_{eff}} \right]$$

[do slab diffn-2 Refr. index ka na rakha koi ek Reff idex ka raho phirse shift utna hi hai]

⑧ Cauchy Relation -

$$\mu \propto \frac{1}{\lambda}$$

$\mu_{red} \downarrow \lambda_{red} \uparrow$

$\mu_{violet} \uparrow \lambda_{violet} \downarrow$

• har kisi medium ka Refractive Index depend karta hai uske upar gire wali wavelength se.