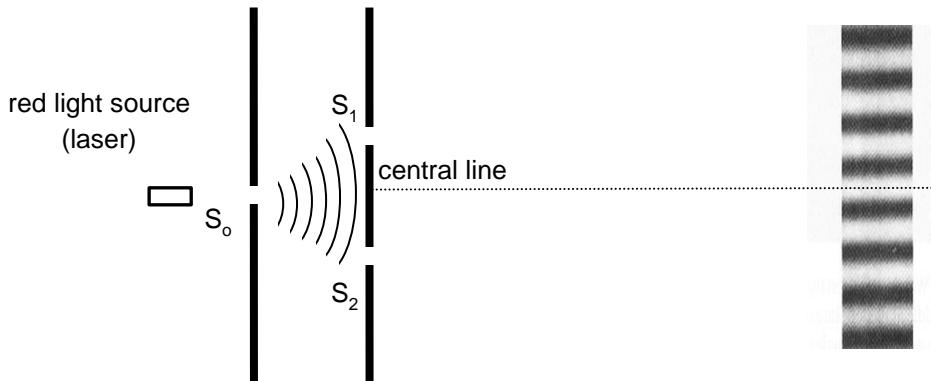


- 19** In a Young's double slit experiment, a red light from a laser is incident on the source slit  $S_0$  and passes through the double slits  $S_1$  and  $S_2$ , producing red bright fringes as shown the figure below.

Subsequently, a transparent thin glass block is placed in front of  $S_1$ .



Which observation is correct?

- A** The fringe separation will decrease.
- B** The fringe separation will be non-uniform.
- C** The contrast between bright and dark fringes will increase.
- D** The central maximum will be shifted upwards.