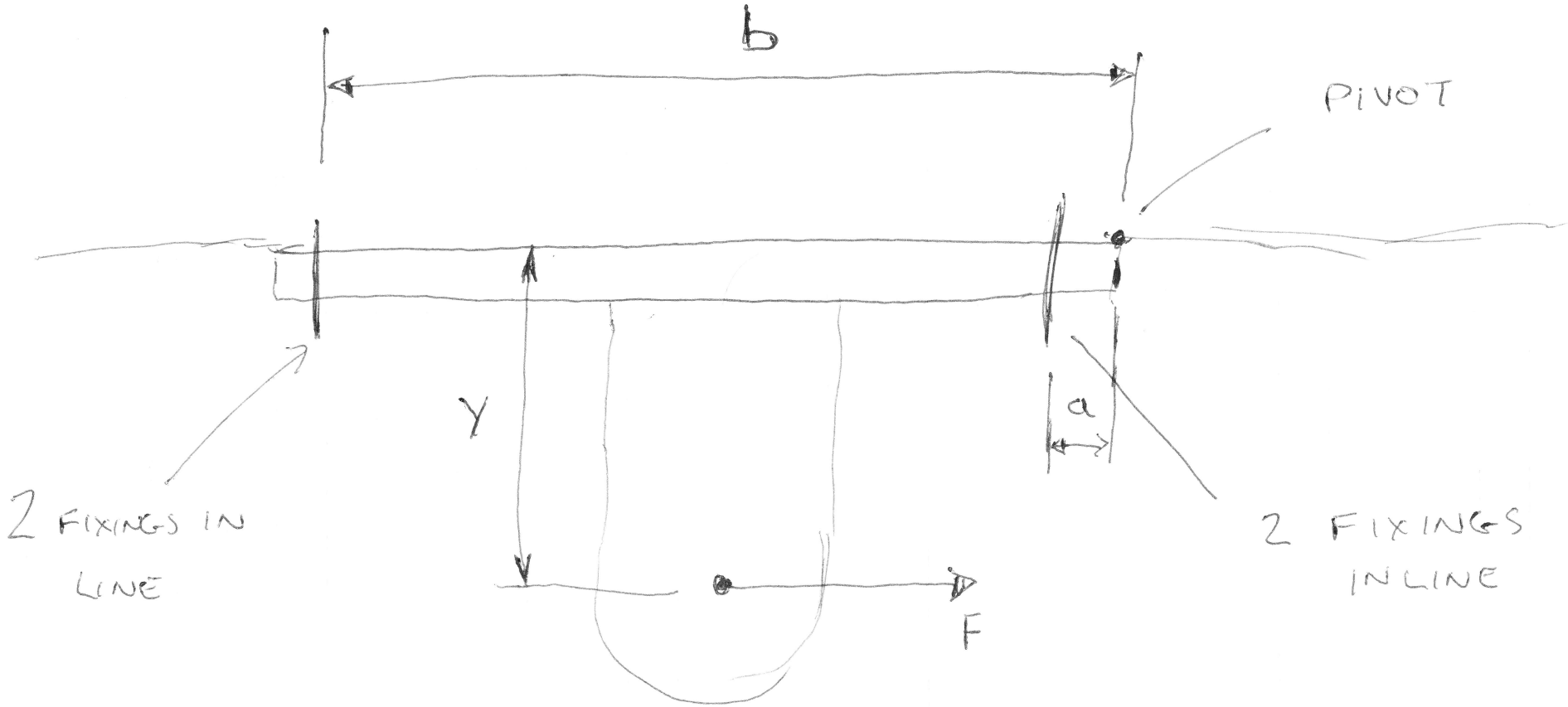

Let μ = FORCE / UNIT LENGTH

TAKE MOMENTS ABOUT PIVOT

$$\therefore F \times Y = 2\mu a^2 + 2\mu b^2 \qquad \therefore \mu = \frac{F \times Y}{(2a^2 + 2b^2)}$$

GREATEST FORCE IN BOLT $= \mu \times b$

MINIMUM " " " $= \mu \times a$