Let $p: E \to B$ be continuous and surjective. Suppose that $U$ is an open set of $B$ that is evenly covered by $p$. Show that if $U$ is connected, then the partition of $p^{-1}(U)$ into slices is unique.

argue contrapositively
Assume that $\{V_\alpha\}$ and $\{B_\beta\}$ are 2 different partitions of $p^{-1}(U)$. Pick a set $B \in \{B_\beta\}_\beta$ s.t. $B \neq V_\alpha$ for any $\alpha$. Then $B = \bigcup_\alpha (V_\alpha \cap B)$ since $\bigcup_\alpha V_\alpha$ is a covering of $p^{-1}(U)$. $V_\alpha \cap B$ is open and thus $p(V_\alpha \cap B)$ is open since $p|_B$ is a homeomorphism. Thus $\{p(V_\alpha \cap B)\}_\alpha$ is a separation of $U$ so $U$ is not connected $\blacksquare$