Rolling the bullet

Question: Two bullets are put into a gun's round barrel consecutively, which has capacity of 6. The gun is shot once, but no bullet is fired. Does rolling the barrel (shuffling) before next shot increase the probability of firing a bullet?

Solution: $P(\text{fire a bullet} \mid \text{roll barrel}) = 2/6$. $P(\text{fire a bullet} \mid \text{not roll}) = 1/4$.