Given $R'' \subset R' \subset R$, we want to proof the following implication:

$$\neg(\mathrm{IND}(R') \subseteq \mathrm{IND}(D)) \Longrightarrow \neg(\mathrm{IND}(R'') \subseteq \mathrm{IND}(D)).$$

By the property:

$$A \subseteq B \Longrightarrow \mathrm{IND}(B) \subseteq \mathrm{IND}(A),$$

we have:

$$R'' \subset R' \Longrightarrow \mathrm{IND}(R') \subseteq \mathrm{IND}(R'').$$

Given $R'' \subset R'$, we have $\mathrm{IND}(R') \subseteq \mathrm{IND}(R'')$. Now assume $\neg(\mathrm{IND}(R') \subseteq \mathrm{IND}(D))$. We want to prove $\neg(\mathrm{IND}(R'') \subseteq \mathrm{IND}(D))$. This can be easily seen through a proof by contradiction. If we assume that $\neg(\mathrm{IND}(R'') \subseteq \mathrm{IND}(D))$ is false, which is equivalnt to $\mathrm{IND}(R'') \subseteq \mathrm{IND}(D)$, by $\mathrm{IND}(R') \subseteq \mathrm{IND}(R'')$, we would have $\mathrm{IND}(R') \subseteq \mathrm{IND}(D)$. This contradicts the assumpiton that $\neg(\mathrm{IND}(R') \subseteq \mathrm{IND}(D))$ is true. Therefore, $\neg(\mathrm{IND}(R'') \subseteq \mathrm{IND}(D))$ must be true.