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Bert Hartnell, Kirsti Kuenzel* (kwashmath@gmail.com) and **Douglas F. Rall.** *On well-covered Cartesian products.*

A graph is called well-covered if all maximal independent sets have the same cardinality. Hartnell and Rall showed that if the Cartesian product $G \square H$ is well-covered, then at least one of G or H is well-covered. A natural question is whether one can characterize those graphs whose Cartesian product is well-covered. We will show that for any connected graph G of girth at least 5 and minimum degree at least 2, $G \square K_2$ is well-covered if and only if $G \cong C_5$. We also show that for any two connected graphs G and H , both with girth at least 5, $G \square H$ is well-covered if and only if $G \square H \in \{K_2 \square K_2, K_2 \square C_5\}$. (Received January 12, 2019)