1020-54-119   **Jason Cantarella*** (`jason@math.uga.edu`), Math Department, University of Georgia, University of Georgia, Athens, GA 30602, and **Elizabeth Denne** and **John McCleary**. *New Results on the "Square Peg" problem.*

In the early years of the last century, it was conjectured that any Jordan curve in the plane contains an inscribed square. Many authors have considered this problem in the meantime, proving the existence of inscribed squares in curves with various regularity assumptions. In this talk, we present new results on this problem, extending the proof of the existence of inscribed squares to a larger class of curves including curves of finite total curvature with no cusps. (Received August 22, 2006)