Which stable curves are limits of smooth plane curves? I will describe the answer explicitly in the first non-trivial case, namely the case of plane quintics. To do so, we will interpret such a curve in terms of a branched cover, but with a twist: the base of the cover will be a stack. The answer will then follow from a nice compactification of the moduli space of stacky branched covers. (Received September 21, 2015)