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Let R be a (not necessarily Noetherian) local ring with finitely generated maximal ideal M . By a result of Cohen, the M -adic completion of R is a Noetherian ring. We examine from several perspectives the situation in which the completion of R is a one-dimensional Cohen-Macaulay ring. In such a case, classical properties of reductions, integral closure and multiplicity are reflected at the “top” of the ring R . One motivation for this topic comes from joint work with Jay Shapiro in 2005 on ultrapowers of Noetherian rings. Another comes from the class of stable rings, those rings for which every regular ideal is projective over its ring of endomorphisms. A theme throughout the talk is the use of pullbacks as a classification tool. Even in the case in which the completion is a one-dimensional Cohen-Macaulay ring, the structure of these pullbacks has a number of subtleties. As an example, we use pullbacks to classify the local rings for which the square of the maximal ideal can be generated by two elements. (Received September 11, 2016)