

**MR857209 (87k:57013)** [57N12](#) ([54B15](#) [54F35](#))

**Bing, R. H.**

**Decompositions that destroy simple connectivity.**

*Illinois J. Math.* **30** (1986), *no. 4*, 527–535.

Providing details for a result he first claimed in 1955, the author efficiently proves that every decomposition space of  $\mathbf{R}^3$  involving a solenoid as its only nondegenerate element fails to be simply connected. The paper is written in typically down-to-earth, readable Bing style; unfortunately, its treatment of the more general circumstances under which such one-element decomposition spaces  $Y$  fail to be simply connected includes no information about developments during the intervening years. The author's ad hoc term "unlike-a-solenoid" seems destined to be less popular than the now common "nearly 1-movable," and a question he raises about the relationship between simple connectivity and local simple connectivity in  $Y$  has been neatly answered by D. R. McMillan, Jr. and N. Shrikhande [*Glas. Mat. Ser. III* **12(32)** (1977), no. 1, 113–124; [MR0500914 \(58 #18415\)](#)].

Reviewed by [R. J. Daverman](#)

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