1. Error in both books

There is an error in the books [1] and [2]. Two statements [1, Theorem 126, p. 90] and [2, Theorem 2.8, p. 18] are incorrect. In private correspondence with the author Mark Marsh provided the following example that illustrates the error.

**Example 1.1. (Marsh)** Let $f_1 : [0, 1] \to 2^{[0,1]}$ be given by $f_1(t) = 1/2$ for $0 \leq t < 3/4$ and $f_1(t) = \{1/2, 4t - 3\}$ for $3/4 \leq t \leq 1$. Note that $f_1^{-1} : [0, 1] \to C([0,1])$. Let $f_2 : [0, 1] \to C([0,1])$ be given by $f_2(t) = 1/2t + 1/4$ for $t \neq 1/2$ and $f_2(1/2) = [0,1]$. For $n > 2$, let $f_n$ be the identity on $[0,1]$. Then $(1,0)$ is an isolated point for $f_1 \circ f_2$ and, thus, $\lim f$ is not connected.

![Figure 1: The graphs of the bonding functions $f_1$ (left) and $f_2$ (right) in Example 1.1](image1.png)

![Figure 2: The graph of $f_1 \circ f_2$ in Example 1.1](image2.png)


**Theorem 126.** Suppose $\{X_i, f_i\}$ is an inverse limit sequence on Hausdorff continua with upper semi-continuous bonding functions such that $f_i$ is Hausdorff continuum-valued
for each \( i \in \mathbb{N} \) (or \( f_i(X_{i+1}) \) is connected with \( f_i^{-1} : f_i(X_i) \to X_{i+1} \) Hausdorff continuum-valued for each \( i \in \mathbb{N} \)) then \( \lim_{\leftarrow} f \) is a Hausdorff continuum.

A corrected statement of Theorem 2.8 from [2] is the following.

**Theorem 2.8.** Suppose \( X \) is a sequence of subintervals of \([0, 1]\) and \( f \) is a sequence of upper semi-continuous functions such that \( f_i : X_{i+1} \to 2^{X_i} \) for each positive integer \( i \). Suppose further that \( f_i \) has connected values for each \( i \in \mathbb{N} \) (or for each \( i \in \mathbb{N} \), \( f_i(X_{i+1}) \) is connected and \( f_i^{-1}(x) \) is an interval for each \( x \in f_i(X_{i+1}) \)). Then, \( \lim_{\leftarrow} f \) is a continuum.

2. Error in [2]

Scott Varagona has observed that a hypothesis of surjectivity is missing from Theorem 2.1, page 14, in [2]. It is true in that statement that if \( G_n \) is connected for each \( n \) the \( \lim_{\leftarrow} f \) is connected without assuming the bonding functions are surjective. However, Example 1.8 on page 8 (the function has value 0 everywhere except at 1 where the value is \( \{0, 1/2\} \)) provides an example of a bonding function having a connected inverse limit but for which \( G_1 = G(f^{-1}) \) is not connected.

**References**
