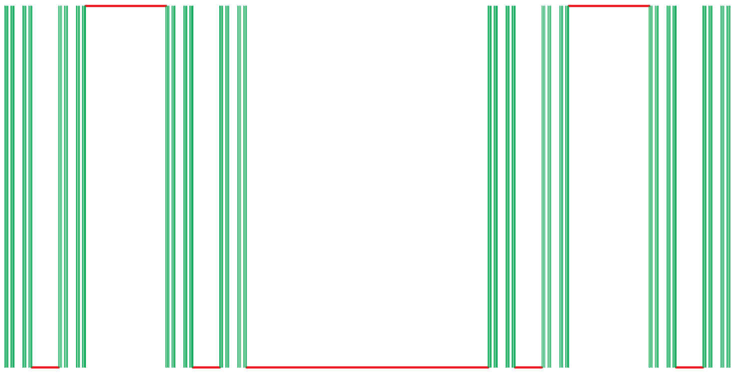

Figure 4.1.2: (A) Cantor organ

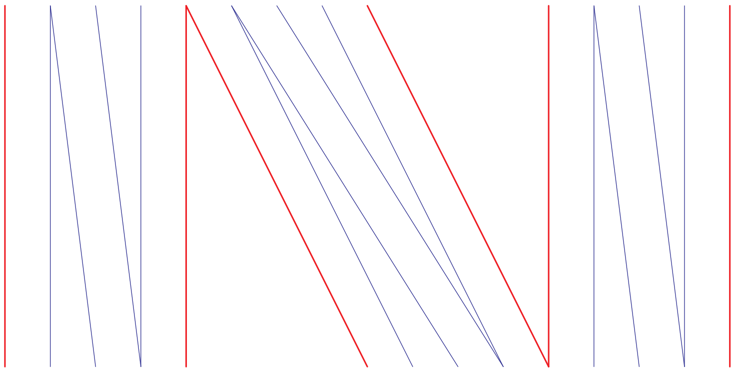

Figure 4.1.2: (B) Cantor accordion

4.1.2 Cantor organ and accordion

The *Cantor organ* X is the union of the product $C \times I$ of the Cantor ternary set C and the unit interval I and all segments of the form $J \times \{0\}$ or $J' \times \{1\}$, where J (J', resp.) is the closure of a component of $I \setminus C$ of length $1/3^{2k-1}$ ($1/3^{2k}$), $k \in \mathbb{N}$ [Kuratowski 1968, p. 191]. See Figure A.

1. X is an arc-like continuum which is irreducible between points $(0, x)$ and $(1, y)$, where $0 \leq x, y \leq 1$, and has exactly four end points.

2. It has uncountably many arc components.

A variation of the Cantor organ is the *Cantor accordion* Y which is defined as the monotone image of X under a map that shrinks horizontal bars $J \times \{0\}$ and $J' \times \{1\}$ to points [Kuratowski 1968, p. 191]. See Figure B.

Besides the above properties,