We construct a large class of pathological $n$-dimensional spheres in $\mathbb{R}^{n+1}$ by showing that for any Cantor set $C \subset \mathbb{R}^{n+1}$ there is a topological embedding $f : S^n \to \mathbb{R}^{n+1}$ of the Sobolev class $W^{1,n}$ whose image contains the Cantor set $C$. (Received September 16, 2015)