Abstract: In this talk, we will construct a large class of pathological $n$-dimensional topological spheres $f(S^n)$ whose image contain an arbitrary Cantor set $C \subset \mathbb{R}^{n+1}$ and the topological embedding $f : S^n \rightarrow \mathbb{R}^{n+1}$ is in the Sobolev class $W^{1,n}$. Our construction resembles that of the Alexander horned sphere. Moreover, by choosing the Cantor set to be Antoine’s neckless, we show that there are uncountably many “essentially different” Alexander horned sphere in $\mathbb{R}^3$. 