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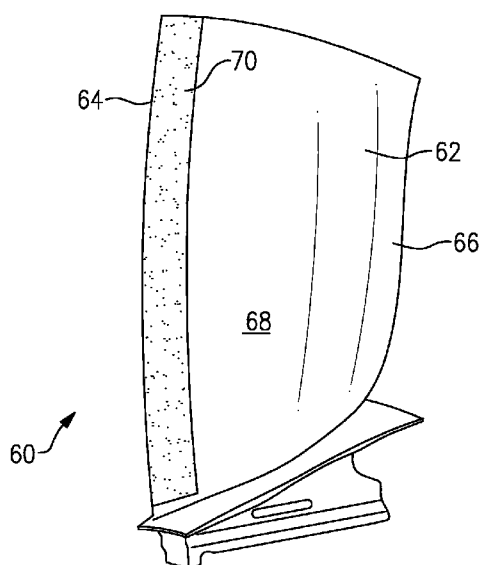


FIG. 2

(57) Abstract: An erosion resistant and hydrophobic article includes a core that has a first hardness and a surface on the core. The surface includes a plurality of geometric features that have a second, greater hardness. The geometric features define a surface porosity by area percent and a corresponding surface solidity by area percent. The surface includes a ratio of the surface solidity divided by the surface porosity that is 1.8 or greater. The geometric features and the ratio establish the surface to be hydrophobic, and the second, greater hardness and the ratio establish an erosion rate of the surface that is equal to or less than an erosion rate of the core under identical erosion conditions.