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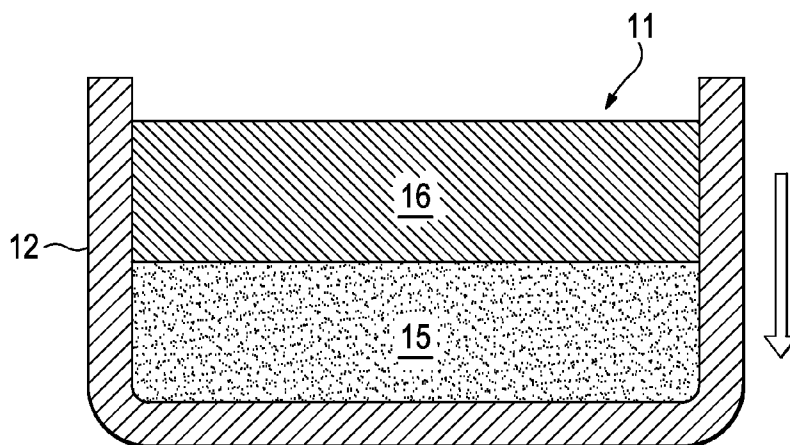


FIG. 1

(57) Abstract: A system and method of forming a wear resistant composite material includes placing a porous wear resistant filler material in a mold cavity and infiltrating the filler material with a matrix material by heating to a temperature sufficient to melt the matrix material, then cooling the assembly to form a wear resistant composite material. The system and method can be used to form the wear resistant composite material on the surface of a substrate, such as a part for excavating equipment or other mechanical part. One suitable matrix material may be any of a variety of ductile iron alloys.