

Title (en)

Method and apparatus for shaping semisolid metals

Title (de)

Verfahren und Vorrichtung zum Formen halbfester Metalle

Title (fr)

Procédé et dispositif pour mettre des métaux semi-solides en forme

Publication

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Application

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- JP 16089095 A 19950627
- JP 23650195 A 19950914
- JP 24410995 A 19950922
- JP 24411195 A 19950922
- JP 24789795 A 19950926
- JP 24948295 A 19950927
- JP 25276295 A 19950929
- JP 25276895 A 19950929
- JP 25276995 A 19950929
- JP 29076095 A 19951109
- JP 32065095 A 19951208
- JP 33295595 A 19951221
- JP 8784896 A 19960410

Abstract (en)

The improved method and apparatus for the semisolid forming of alloys to enable shaped parts having a fine-grained, spherical thixotropic structures to be produced in a convenient, easy and inexpensive manner without relying upon the conventional mechanical or electromagnetic agitation. In the method, a liquid alloy having crystal nuclei at a temperature not lower than the liquidus temperature or a partially solid, partially liquid alloy having crystal nuclei at a temperature not lower than a molding temperature is fed into an insulated vessel having a heat insulating effect, held in said insulated vessel for a period from 5 seconds to 60 minutes as it is cooled to the molding temperature where a specified fraction liquid is established, thereby crystallizing fine primary crystals in the alloy solution, and the alloy is fed into a forming mold, where it is shaped under pressure.

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