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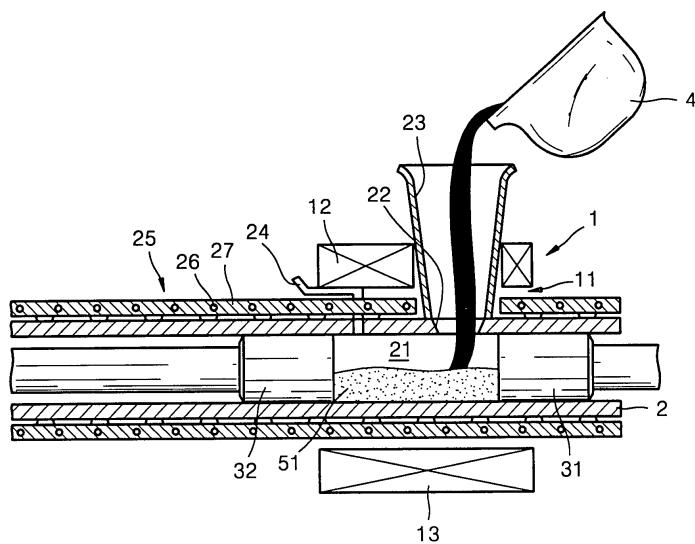
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### (54) Method and apparatus for manufacturing billets for thixocasting

(57) Provided are a method and apparatus for continuously manufacturing quality billets for thixocasting that have a fine, uniform, spherical particle structure, in a short time, with improvements in energy efficiency and mechanical properties, cost reduction, convenience of casting, and shorter manufacturing time. The method involves applying an electric field to a domain (21) of a

sleeve (2) defined by first (31) and second (32) plungers inserted through each end of the sleeve and loading a molten metal into the domain of the sleeve to form a semi-solid metallic slurry (51), moving the first plunger toward the second plunger to compress the semi-solid metallic slurry and form a billet (52) via cooling, and shifting the billet toward the second plunger to discharge the billet from the sleeve.

FIG. 2





DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
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The present search report has been drawn up for all claims			
1	Place of search The Hague	Date of completion of the search 29 April 2005	Examiner Mailliard, A
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			
T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ..... & : member of the same patent family, corresponding document			

ANNEX TO THE EUROPEAN SEARCH REPORT  
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