

Title (en)
PROCESS AND DEVICE FOR MELTING AND CONTINUOUSLY CASTING METALS

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Application
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Abstract (en)
[origin: US4838933A] Apparatus for melting and continuously casting metals, comprising a vertical, conductive cold crucible (1) with at least part of the height of its wall in the form of longitudinal sectors (2) which are electrically insulated from one another and have a cooling fluid running through them; an inductor (6) with coils helically surrounding the crucible (1) over part of its height and supplied with alternating current both for heating and confining the metal; a system for drawing down the ingot; and possibly a chamber with a controlled external atmosphere, separating at least the contents of the crucible (1) from the external atmosphere, characterized in that the crucible (1) has an upper zone (4) divided into sectors, with parallel vertical generating lines, and a lower zone (5) divided into sectors and joined to the upper zone (4), the generating lines of the lower zone spreading apart in a downward direction from the join (45) between the two zones (4 and 5), and that the lowest coil (60) of the inductor (6) is at the level of that join (45). The apparatus of the invention is advantageously used for melting and casting refractory metals and other materials.

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