

Title (en)  
LANCE FOR SIDE-SUBMERGED COMBUSTION SMELTING METALLURGICAL FURNACE AND METALLURGICAL FURNACE HAVING LANCE

Title (de)  
LANCE FÜR SEITLICH UNTERGETAUCHT VERBRENNUNGSMETALLURGISCHEN OFEN UND METALLURGISCHER OFEN MIT LANCE

Title (fr)  
LANCE POUR FOUR MÉTALLURGIQUE À COMBUSTION IMMERGÉE ET FOUR MÉTALLURGIQUE AVEC LANCE

Publication  
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Application  
**EP 17773006 A 20170302**

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Abstract (en)  
[origin: EP3438590A1] A lance (100) for a side-submerged combustion smelting metallurgical furnace and a metallurgical furnace (1000) having the lance. The lance (100) includes: an outer injection pipe (10), the outer injection pipe (10) internally defining a combustion-supporting gas inlet (11), a combustion-supporting gas outlet (12), and an insertion port (13); an insertion self-locking member (20) having a self-locking and closing function, the insertion self-locking member (20) being mounted at the insertion port (13) of the outer injection pipe; an inner injection pipe (30), the inner injection pipe (30) having a medium inlet (31), a medium injection port (32), and a medium clearing port (33), the inner injection pipe (30) being detachably inserted into the insertion self-locking member (20), an end of the inner injection pipe (30) provided with the medium injection port (32) extending into the outer injection pipe (10) via the insertion port (13), and the insertion self-locking member (20) being self-locked and closed to block off the insertion port (13) when the inner injection pipe (30) is disengaged from the insertion self-locking member (20); and a blocking member (40), the blocking member (40) being mounted to the inner injection pipe (30) to open or close the medium clearing port (33). The lance not only facilitates clearing of pulverized coal clogging the inner injection pipe (30), thus allowing the inner injection pipe (30) to be unclogged in time, but also obviates the need to lower a liquid level of a molten bath when the inner injection pipe is detached for maintenance, thereby effectively ensuring normal operation of the metallurgical furnace and increasing yield.

IPC 8 full level  
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