

12-17-1998



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Execution Date
Month Day Year
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Name (line 1) Francois-Noel Richard

Name (line 2)

Second Party

Execution Date
Month Day Year
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Name (line 1) Hubert Abels

Name (line 2)

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If document to be recorded is an assignment and the receiving party is not domiciled in the United States, an appointment of a domestic representative is attached. (Designation must be a separate document from Assignment.)

Name (line 1) Vesuvius Crucible Company

Name (line 2) a Delaware Corporation

Address (line 1) 2500 W. 4th Street

Address (line 2)

Address (line 3)
City State/Country Zip Code

Domestic Representative Name and Address

Enter for the first Receiving Party only.

Name

Address (line 1)

Address (line 2)

Address (line 3)

Address (line 4)

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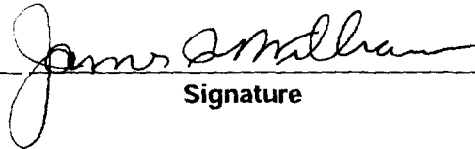
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Number of Properties Enter the total number of properties involved. #

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To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. Charges to deposit account are authorized, as indicated herein.
JAMES R. WILLIAMS  Dec 9, 1998
Name of Person Signing Signature Date

PATENT APPLICATION ASSIGNMENT
FROM INVENTORS TO VESUVIUS CRUCIBLE COMPANY

WHEREAS WE, Francois-Noel Richard, a citizen of France residing at Nancy - 28 Av. Anatole France - 54000, and Hubert Abels, a citizen of BELGIUM residing at 3 RUE DE VILLE 7322 PEDERBACH, have made a certain new and useful invention as set forth in an application for United States Letters Patent, entitled: Tundish Equipped with a Tube Changer and Plate for the Tube Changer, for which an application for United States Letters Patent was filed with an International Filing date of February 12, 1997, and identified by United States Serial No. 09/125,774;

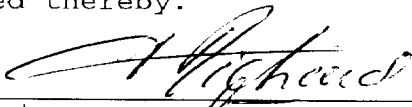
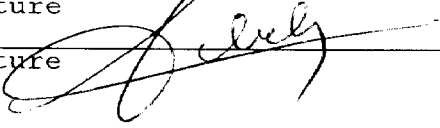
AND WHEREAS, Vesuvius Crucible Company, a corporation of the State of Delaware and having an office at 2500 W. 4th Street, Wilmington, Delaware 19899, hereinafter referred to as assignee, is desirous of acquiring the entire right, title and interest in and to said invention and in and to any and all Letters Patent of the United States and foreign countries that may be obtained therefor;

NOW, THEREFORE, for good and valuable consideration, the receipt for and sufficiency of which is hereby acknowledged, We do hereby sell, assign, transfer and set over unto said assignee, its legal representatives, successors, and assigns, the entire right, title and interest in and to said invention as set forth in the above-mentioned application, including any continuations, continuations-in-part, divisions, reissues, re-examinations or extensions thereof, and in and to any and all patents of the United States and foreign countries that may be issued for said invention;

UPON SAID CONSIDERATIONS, We hereby agree with the said assignee that We will not execute any writing or do any act whatsoever conflicting with these presents, and that We will, at any time upon request, without further or additional consideration but at the expense of said assignee, execute such additional assignments and other writings and do such additional acts as said assignee may deem necessary or desirable to perfect the assignee's enjoyment of this grant, and render all necessary assistance in making application for and obtaining original, divisional, continuations, continuations-in-part, reexamined, reissued, or extended Letters Patent of the United States or of any and all foreign countries on said invention, and in enforcing any rights or choses in action accruing as a result of such applications or patents, by giving testimony in any proceedings or transactions involving such applications or patents, and by executing preliminary statements and other affidavits, it being understood that the foregoing covenant and agreement shall bind, and inure to the benefit of the assigns and legal representatives of assignor and assignee;

AND We request the Commissioner of Patents and Trademarks to issue any Letters Patent of the United States that may be issued for said invention to said assignee, its legal representatives, successors or assigns, as the sole owner of the entire right, title and interest in and to said patent and the invention covered thereby.

26 November 1998
Date
26 November 1998
Date


Signature

Signature