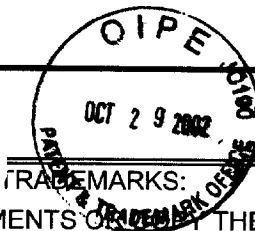


11-04-2002

RECORDATION F
PATENT APPLIC

102269854



10-29-02

TO THE HONORABLE

SIR: PLEASE RECOR.

... ATTACHED ORIGINAL DOCUMENTS OR ANY THEREOF.

1. NAME OF CONVEYING PARTY(IES) (ASSIGNOR(S)):

1. RICHARD JAMES FLATMAN
2. CHRISTOPHER FREEMAN

ADDITIONAL NAME(S) OF CONVEYING PARTY(IES) ATTACHED? ☐ YES☒ NO

2. PARTY(IES) (ASSIGNEE(S)) RECEIVING INTEREST:

NAME: Rolls-Royce plc, a British Company

ADDRESS: 65 Buckingham Gate, London SW1E 6AT, England

ADDITIONAL NAME(S) & ADDRESS(ES) ATTACHED? ☐ YES☒ NO

3. NATURE OF CONVEYANCE (DOCUMENT):

(Submit herewith only one document for recordation -- multiple copies of same Assignment signed by different inventors is one document)☒ ASSIGNMENT OF ☒ WHOLE ☐ PART INTEREST☐ CHANGE OF NAME ☐ VERIFIED TRANSLATION

EXEC. DATE: 8/24/02 AND 8/10/02

☐ SECURITY ☐ MERGER ☐ OTHER:

4. EXECUTION DATE(S) ON THE DECLARATION IF FILED HERewith: (NOTE: IF DATES ↑↓ DIFFER SEE ATTY!):

4.5 APPL. NO.(S) OR PAT NO.(S). OTHERS ON ADDITIONAL SHEET(S) attached? ☐ YES ☒ NO

| A. PAT. APP. NO.(S) series code/serial no | M# | 1ST INVENTOR if not in item 1 | B. PATENT NO(S) | M# | 1ST INVENTOR if not in item 1 |
|--|-------|----------------------------------|-----------------|----|----------------------------------|
| 10/206770 | 84598 | | | | |

5. Name & Address of Party to Whom Correspondence Concerning Document Should be Mailed:

W. Warren Taltavull
Manelli, Denison & Selter, PLLC
Seventh Floor
2000 M Street, N.W.
Washington, D.C. 20036

6. NUMBER INVOLVED:

APPLNS 1 + PATS: = TOTAL 1

7. AMOUNT OF FEE ENCLOSED: (Code 581)

ABOVE TOTAL X \$40 = \$ 40

5.5 ATTY DKT:WWT/

8. IF ABOVE FEE IS MISSING OR INADEQUATE CHARGE INSUFFICIENCY TO DEPOSIT ACCOUNT NUMBER: 50-0687

| | | | |
|-----------|-------------|-------------------------|------------|
| 84598 | 2846KAW | UNDER ORDER NO | 84598 |
| MATTER NO | CLIENT REF. | dup. sheet not required | CLIENT NO. |
| | | | MATTER NO. |

9. STATEMENT AND SIGNATURE.

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.

Signature

10. Total number of pages including this cover sheet, attachments and document (do not file dup. Cover sheet)

3

Attorney: W. Warren Taltavull

Reg. No. 25647

Atty/Sec: TEL: (202) 261-1047

Date: October 29, 2002

Fax: (202) 887-0336

10/31/2002 ADSPAH1 00000037 10206770

02 FC:8021

40.00 UP

Please return signed/recorded to:

USA Patent Appln.
Sole or JointFor Inventions made outside USA
executed with or after application

| | | |
|------------|-------|-------------|
| Atty. Dkt. | 73155 | 2547 |
| | M# | Client Ref. |

Manelli, Denison & Selter PLLC
2000 M Street N.W., 7th Floor
Washington, D.C. 20036

NONPROVISIONAL

ASSIGNMENT OF NONPROVISIONAL APPLICATION

NONPROVISIONAL

In consideration of the sum of Ten Dollars (\$10.00) and other good and valuable consideration paid to the undersigned, to wit:

INSERT
NAME(S) OF
INVENTOR(S)

| | | | |
|-----|-----------------------|---|--|
| (1) | Richard James Flatman | (4) | |
| (2) | Christopher Freeman | (5) | |
| (3) | | <input type="checkbox"/> X box if continued on page 2 | |

the receipt and sufficiency of which are hereby acknowledged by the undersigned who at the request of, hereby sell(s), assign(s) and transfer(s) unto:

INSERT
NAME(S) OF
ASSIGNEE(S)
& ADDRESS(ES)

Rolls-Royce plc, a British Company of

65 Buckingham Gate

London

SW1E 6AT

England

(hereinafter designated "ASSIGNEE") the entire right, title and interest for the United States of America as defined in 35 U.S.C. 100, in the invention and all applications including any and all divisions, continuations, substitutes, and reissues thereof; and all resulting patents, known as

TITLE OF
INVENTION

IMPROVED CYCLE GAS TURBINE ENGINE

For which the undersigned executed an application for Letters Patent of the United States of America:

NOTE(A) ☐ even date herewith

(COMPLETE

(B) ☐ on _____

LINES A,B, AND/OR C)

(C) ☐ in U.S. Application No. _____ / _____ filed _____

AND the undersigned hereby authorize(s) and request(s) the United States Commissioner of Patents and Trademarks to issue said Letters Patent to the said ASSIGNEE, for its interest as ASSIGNEE, its successors, assigns and legal representatives; the undersigned agree(s) that the attorney of record in said application shall hereinafter act on behalf of said ASSIGNEE;

AND the undersigned hereby agree(s) to testify and execute any papers for ASSIGNEE, its successors, assigns and legal representatives, deemed essential by ASSIGNEE to ASSIGNEE'S full protection and title in and to the invention hereby transferred.

NOTE → → The undersigned hereby authorize(s) Manelli, Denison & Selter PLLC, of the above address to insert hereon any further identification necessary or desirable for recordation of this document.

Richard J. Flatman
INVENTOR(S)

DATE SIGNED**WITNESSES**

1) *R. J. Flatman*
Name: Richard James Flatman

24th August 2002

Wickett Mop

2) _____
Name: Christopher Freeman

3) _____
Name: _____

4) _____
Name: _____

5) _____
Name: _____

IF ADDITIONAL INVENTORS, check box ☐ and continue on page 2.

Please return signed/recorded to:

USA Patent Appln.
Sole or JointFor Inventions made outside USA
executed with or after application

Atty. Dkt.

73155

2547

M#

Client Ref.

Manelli, Denison & Selter PLLC
2000 M Street N.W. 7th Floor
Washington, D.C. 20036**NONPROVISIONAL****ASSIGNMENT
OF NONPROVISIONAL APPLICATION****NONPROVISIONAL**

In consideration of the sum of Ten Dollars (\$10.00) and other good and valuable consideration paid to the undersigned, to wit:

INSERT
NAME(S) OF
INVENTOR(S)

| | | | |
|-----|-----------------------|---|--|
| (1) | Richard James Flatman | (4) | |
| (2) | Christopher Freeman | (5) | |
| (3) | | <input type="checkbox"/> X box if continued on page 2 | |

the receipt and sufficiency of which are hereby acknowledged by the undersigned who at the request of, hereby sell(s), assign(s) and transfer(s) unto:

INSERT
NAME(S) OF
ASSIGNEE(S)
& ADDRESS(ES)

Rolls-Royce plc, a British Company of
65 Buckingham Gate
London
SW1E 6AT
England

(hereinafter designated "ASSIGNEE") the entire right, title and interest for the United States of America as defined in 35 U.S.C. 100, in the invention and all applications including any and all divisions, continuations, substitutes, and reissues thereof; and all resulting patents, known as

TITLE OF
INVENTION**IMPROVED CYCLE GAS TURBINE ENGINE**

For which the undersigned executed an application for Letters Patent of the United States of America:

NOTE(A) ☐ even date herewith

(COMPLETE

(B) ☐ on _____

LINES A,B, AND/OR C)

(C) ☐ in U.S. Application No. _____ / _____ filed _____

AND the undersigned hereby authorize(s) and request(s) the United States Commissioner of Patents and Trademarks to issue said Letters Patent to the said ASSIGNEE, for its interest as ASSIGNEE, its successors, assigns and legal representatives; the undersigned agree(s) that the attorney of record in said application shall hereinafter act on behalf of said ASSIGNEE;

AND the undersigned hereby agree(s) to testify and execute any papers for ASSIGNEE, its successors, assigns and legal representatives, deemed essential by ASSIGNEE to ASSIGNEE'S full protection and title in and to the invention hereby transferred.

NOTE → → The undersigned hereby authorize(s) Manelli, Denison & Selter PLLC, of the above address to insert hereon any further identification necessary or desirable for recordation of this document.**INVENTOR(S)****DATE SIGNED****WITNESSES**

1) Name: Richard James Flatman

2) *Christopher Freeman*
Name: Christopher Freeman

10/08/02

[Signature]

3) Name: _____

4) Name: _____

5) Name: _____

IF ADDITIONAL INVENTORS, check box ☐ and continue on page 2.

RECORDED: 10/28/2002

PATENT
REEL: 013435 FRAME: 0900