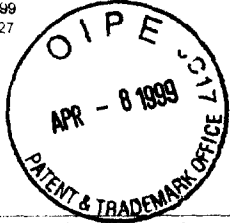


D/S

FORM PTO-1618A
Expires 06/30/99
OMB 0651-0027

04-22-1999

U.S. Department of Commerce
Patent and Trademark Office
TRADEMARK



101015235

RECORDATION FORM COVER SHEET TRADEMARKS ONLY

TO: The Commissioner of Patents and Trademarks: Please record the attached original document(s) or copy(ies).

MRS 4-8-99

Submission Type

- New
- Resubmission (Non-Recordation)
Document ID # _____
- Correction of PTO Error
Reel # _____ Frame # _____
- Corrective Document
Reel # _____ Frame # _____

Conveyance Type

- Assignment License
- Security Agreement Nunc Pro Tunc Assignment
- Merger Effective Date
Month Day Year

- Change of Name
- Other _____

Conveying Party

Mark if additional names of conveying parties attached

Name Execution Date
Month Day Year

Formerly

- Individual General Partnership Limited Partnership Corporation Association
- Other
- Citizenship/State of Incorporation/Organization

Receiving Party

Mark if additional names of receiving parties attached

Name

DBA/AKA/TA

Composed of

Address (line 1)

Address (line 2)

Address (line 3)

City State/Country Zip Code

- Individual General Partnership Limited Partnership 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 should be attached. (Designation must be a separate document from Assignment.)
- Corporation Association
- Other
- Citizenship/State of Incorporation/Organization

04/20/1999 JSHABAZZ 00000050 1574413

FOR OFFICE USE ONLY

01 FC:481
02 FC:482

40.00 OP
25.00 OP

Public burden reporting for this collection of information is estimated to average approximately 30 minutes per Cover Sheet to be recorded, including time for reviewing the document and gathering the data needed to complete the Cover Sheet. Send comments regarding this burden estimate to the U.S. Patent and Trademark Office, Chief Information Officer, Washington, D.C. 20231 and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Paperwork Reduction Project (0651-0027), Washington, D.C. 20503. See OMB Information Collection Budget Package 0651-0027, Patent and Trademark Assignment Practice. DO NOT SEND REQUESTS TO RECORD ASSIGNMENT DOCUMENTS TO THIS ADDRESS.

Mail documents to be recorded with required cover sheet(s) information to:
Commissioner of Patents and Trademarks, Box Assignments, Washington, D.C. 20503

REEL: 1886 FRAME: 0752

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)

Correspondent Name and Address

Area Code and Telephone Number

Name

Address (line 1)

Address (line 2)

Address (line 3)

Address (line 4)

Pages

Enter the total number of pages of the attached conveyance document including any attachments.

#

Trademark Application Number(s) or Registration Number(s)

Mark if additional numbers attached

Enter either the Trademark Application Number or the Registration Number (DO NOT ENTER BOTH numbers for the same property).

Trademark Application Number(s)

Registration Number(s)

<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>

<input type="text" value="1,574,413"/>	<input type="text" value="826,093"/>	<input type="text"/>
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Number of Properties

Enter the total number of properties involved.

#

Fee Amount

Fee Amount for Properties Listed (37 CFR 3.41):

\$

Method of Payment:

Enclosed

Deposit Account

Deposit Account

(Enter for payment by deposit account or if additional fees can be charged to the account.)

Deposit Account Number:

#

Authorization to charge additional fees:

Yes

No

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. Charges to deposit account are authorized, as indicated herein.

Christopher E. Kondracki

April 5, 1999

Name of Person Signing

Signature

Date Signed

**TRADEMARK AND TRADEMARK
APPLICATION SECURITY AGREEMENT**

Date: March 1st, 1999

This Trademark and Trademark Application Security Agreement (the "**TM Security Agreement**") is made the 1st day of March, 1999 by Harvard Apparatus, Inc., a Massachusetts corporation with its principal executive offices at 84 October Hill Road, Holliston, Massachusetts (the "**Borrower**"), and Brown Brothers Harriman & Co., a New York limited partnership with offices at 40 Water Street, Boston, Massachusetts, as agent for itself and such other lending institutions as become Lenders under a certain Amended and Restated Loan and Security Agreement dated as of the date hereof (in such capacity, the "**Agent**").

RECITALS

WHEREAS, pursuant to the Amended and Restated Loan and Security Agreement dated March 1st, 1999, as amended from time to time (hereinafter, the "**Loan Agreement**"), made between the Borrower and the Agent, the Agent has and the Lenders agreed to make certain loans (hereinafter, the "**Loans**") available to the Borrower;

WHEREAS, under the Loan Agreement, the Borrower has created a security interest in the Borrower's assets to secure the liabilities and obligations of the Borrower to the Agent and the Lenders (hereinafter, the "**Liabilities**");

WHEREAS, as a condition, among others, to the continuation of the credit facility contemplated by the Loan Agreement, as to further secure the Liabilities, the parties hereto shall execute this TM Security Agreement.

NOW THEREFORE, For good and valuable consideration, the receipt and sufficiency of which are acknowledged, the Borrower and the Agent agree as follows:

1. To secure the Liabilities, the Borrower hereby grants a security interest in favor of the Agent, with power of sale, in and to the following and all proceeds thereof:

(a) All of the Borrower's now owned or existing or hereafter acquired or arising trademarks, trademark applications, service marks, registered service marks and service mark applications including,

without limitation, the trademarks, registered trademarks, trade mark applications, service marks, registered service marks and service mark applications listed on **EXHIBIT A** annexed hereto and made a part hereof, together with any goodwill connected with and symbolized by any such trademarks, trademark applications, service marks, registered service marks or service mark applications.

(b) All renewals of any of the foregoing.

(c) All income, royalties, damages and payments now and hereafter due and/or payable under and with respect to any of the foregoing, including, without limitation, payments under all licenses entered into in connection therewith and damages and payments for past or future infringements or dilutions thereof.

(d) The right to sue for past, present and future infringements and dilutions of any of the foregoing.

(e) All of Borrower's rights corresponding to any of the foregoing throughout the world.

All of the foregoing trademarks, registered trademarks and trademark applications, and service marks, registered service marks and service mark applications described in Subsection 1.(a), together with the items respectively described in Subsections 1.(b) through and including 1.(e) are hereinafter individually and/or collectively referred to as the "**Trademarks**".

2. Until this TM Security Agreement is terminated, the Borrower shall undertake the following with respect to each Trademark to the extent prudent in the exercise of its reasonable business judgment and provided that any failure to do so does not have a material adverse effect on the Borrower and its subsidiaries on a consolidated basis:

(a) Pay all renewal fees and other fees and costs associated with maintaining the Trademarks and with the processing of the Trademarks.

(b) At Borrower's sole cost, expense, and risk, pursue the prompt, diligent, processing of each Application for Registration which is the subject of the foregoing assignment and not abandon or delay any such efforts.

(c) At Borrower's sole cost, expense, and risk, take any and all action which Borrower deems desirable to protect the Trademarks, including, without limitation, but subject to Borrower's discretion, the prosecution and defense of infringement actions.

3. Upon the occurrence of any Event of Default (as defined in the Loan Agreement), the Agent acting in its own name or in that of the Borrower may (but shall not be required to) act in the Borrower's place and stead and/or in the Agent's own right in connection with the obligations set forth in Section 2, above.

4. The Borrower represents and warrants that:

(a) The Patents listed on *EXHIBIT A* include all of the registered trademarks, Federal trademark applications, registered service marks and Federal service mark applications now owned by the Borrower.

(b) No liens, claims or security interests have been granted by the Borrower to any person or entity in such Trademarks other than to the Agent or as otherwise permitted pursuant to the Loan Agreement.

5. In order to further secure the Liabilities:

(a) The Borrower shall give the Agent written notice (with reasonable detail) within ten (10) days following the occurrence of any of the following:

(i) The Borrower obtains rights to any new trademarks, registered service marks or service mark applications, service marks, registered service marks or service mark applications (other than Borrower's right to sell products containing the trademarks of others in the ordinary course of Borrower's business)

(ii) The Borrower becomes entitled to the benefit of any trademarks, registered trademarks, trademark applications, trademark licenses, trademark license renewals, service marks, registered service marks, service mark applications, service mark licenses or service mark license renewals whether as licensee or licensor (other than Borrower's

right to sell products containing the trademarks of others in the ordinary course of Borrower's business).

(iii) The Borrower enters into any new trademark license agreement or service mark license agreement.

(b) The provisions of this TM Security Agreement shall automatically apply to any such additional property or rights described in 5.(a), above, all of which shall be deemed to be and treated as "Trademarks" within the meaning of this TM Security Agreement.

(c) The Borrower hereby authorizes the Agent to modify this agreement by amending *EXHIBIT A* to include any future trademarks, registered trademarks, trademark applications, service marks, registered service marks and service mark applications, written notice of which is so given, provided, however, the modification of said *EXHIBIT* shall not be a condition to the creation or perfection of the security interest and TM Security Agreement created hereby.

6. Upon the occurrence and during the continuance of any Event of Default (as defined in the Loan Agreement), the Agent may exercise all rights and remedies of a secured party under the Uniform Commercial Code as adopted in Massachusetts (Massachusetts General Laws, Chapter 106), with respect to the Trademarks, in addition to which the Agent, subject to the terms of the Loan Agreement, may sell, license, assign, transfer, or otherwise dispose of the Trademarks. Any person may conclusively rely upon an affidavit of an officer of the Agent that an Event of Default and demand has occurred and that the Agent is authorized to exercise such rights and remedies.

7. Effective upon the occurrence and during the continuance of any Event of Default (as defined in the Loan Agreement), the Borrower hereby irrevocably constitutes and designates the Agent as and for the Borrower's attorney in fact:

(a) To exercise any of the rights exercisable and powers referenced in Section 2.

(b) To execute all and singular such instruments, documents, and papers as the Agent determines to be appropriate in connection with the

exercise of such rights and remedies and to cause the sale, license, assignment, transfer, or other disposition of the Trademarks.

The within grant of a power of attorney, being coupled with an interest, shall be irrevocable until the within TM Security Agreement is terminated.

8. Any use by the Agent of the Trademarks as authorized hereunder in connection with the exercise of the Agent's right and remedies under the within TM Security Agreement and the Loan Agreement shall be coextensive with Borrower's rights thereunder and with respect thereto and without any liability for royalties or other related charges from the Agent to the Borrower.

9. Agent hereby grants to Borrower the right, prior to notice from the Agent following the occurrence and during the continuance of an Event of Default (as defined in the Loan Agreement), to sue for past, present and future infringement of the Trademarks including the right to seek injunctions and/or money damages, in an effort by Borrower to protect the Trademarks against encroachment by third parties. Borrower shall notify Agent in writing of any such suit for enforcement of the trademarks against a particular party. All reasonable costs arising in connection with any infringement shall be borne by Borrower.

10. Following the payment and satisfaction of all Liabilities, and the termination of any obligation of the Agent and the Lender to provide loans or financial accommodations under the credit facility contemplated by the Loan Agreement, this TM Security Agreement shall terminate and the Agent shall execute and deliver to Borrower all such instruments as the Borrower reasonably may request to evidence such termination and to the extent, if any, necessary to re-vest in Borrower full title to the Trademarks and the associated goodwill, subject to any disposition thereof which may have been made by Agent pursuant hereto or pursuant to the Loan Agreement.

11. The Borrower shall, at the request of the Agent, do any and all acts and execute any and all documents reasonably required by the Agent in

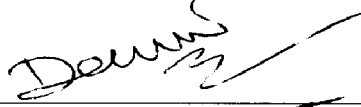
connection with the protection, preservation, and enforcement of the Agent's rights hereunder.

12. The Borrower shall, upon demand, reimburse the Agent for all reasonable costs and expenses incurred by the Agent in the exercise of any rights hereunder (including, without limitation, reasonable fees and expenses of counsel).

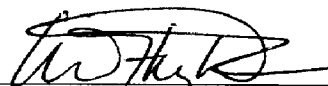
13. This TM Security Agreement is intended to be supplemental of the Loan Agreement. All provisions of the Loan Agreement shall apply to the Trademarks and the Agent shall have the same rights with respect to any and all Trademarks granted the Agent to secure the Liabilities hereunder as thereunder. In the event of a conflict between this TM Security Agreement and the Loan Agreement, the terms of this TM Security Agreement shall control with respect to the Trademarks, and the Loan Agreement shall control with respect to all other collateral.

IN WITNESS WHEREOF, the Borrower and the Agent respectively have caused this TM Security Agreement to be executed by officers duly authorized so to do on the date first above written.

Harvard Apparatus, Inc.
(The "Borrower")

By 
Title: PRESIDENT

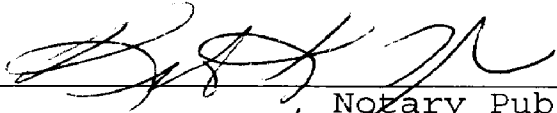
Brown Brothers Harriman & Co.
(The "Agent")

By 
Timothy T. Telman
Deputy Manager

Commonwealth of Massachusetts
County of ~~Suffolk~~ *Middlesex*

Then personally appeared before me DAVID GREEN who
acknowledged that such person is the duly authorized
PRESIDENT of Harvard Apparatus, Inc., and that such person
executed the foregoing instrument on its behalf.

Witness my hand and seal this 15th day of March, 1999.

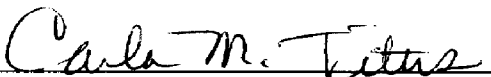


, Notary Public
My Commission Expires:
MY COMMISSION EXPIRES
MAY 31, 2002

Commonwealth of Massachusetts
County of Suffolk

Then personally appeared before me Timothy T. Telman, who
acknowledged that such person is the duly authorized Deputy
Manager of Brown Brothers Harriman & Co.; and that such person
executed the foregoing instrument on its behalf.

Witness my hand and seal this 17th day of March, 1999.



, Notary Public
My Commission Expires: 7/26/02

EXHIBIT A

U.S. Registrations

The Company has the rights to the following:

1. CPK - US Trademark #826093
2. STRONGHOLD - US Trademark #1574413
3. Whole Rat - name owned
4. Oxymap - US Tradename
5. Oxyspot - US Tradename

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