

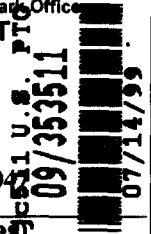
07-23-1999



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RECORDATION FORM COVER SHEET
PATENTS ONLY

PD-99W04



7-14-99

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

Submission Type

New

Resubmission (Non-Recordation)
Document ID#

Correction of PTO Error
Reel # Frame #

Corrective Document
Reel # Frame #

Conveyance Type

Assignment Security Agreement

License Change of Name

Merger Other

U.S. Government
(For Use ONLY by U.S. Government Agencies)

Departmental File Secret File

Conveying Party(ies)

Mark if additional names of conveying parties attached

Name (line 1) Execution Date Month Day Year

Name (line 2)

Second Party

Name (line 1)

Name (line 2)

Execution Date Month Day Year

Receiving Party

Mark if additional names of receiving parties attached

Name (line 1) 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 2)

Address (line 1)

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)

FOR OFFICE USE ONLY

07/22/1999 MTHAI1 00000137 500616 09353511

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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. 20231

REEL: 010107 FRAME: 0180

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. #

Application Number(s) or Patent Number(s) Mark if additional numbers attached

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

Patent Application Number(s)			Patent Number(s)		
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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If this document is being filed together with a new Patent Application, enter the date the patent application was signed by the first named executing inventor. Month Day Year

Patent Cooperation Treaty (PCT)

Enter PCT application number only if a U.S. Application Number has not been assigned.

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

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

(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.

Colin M. Raufer, Reg. No. 40,781

Name of Person Signing Signature Date

RECORDATION FORM COVER SHEET CONTINUATION PATENTS ONLY

PATENT

PTO
09/353511
07/14/99

Conveying Party(ies)

Mark if additional names of conveying parties attached

Enter additional Conveying Parties

Execution Date
Month Day Year

Name (line 1) **Edna M. Purer**

07-09-1999

Name (line 2)

Execution Date
Month Day Year

Name (line 1) **Nelson W. Sorbo**

07-14-1999

Name (line 2)

Execution Date
Month Day Year

Name (line 1)

Name (line 2)

Receiving Party(ies)

Mark if additional names of receiving parties attached

Enter additional Receiving Party(ies)

Name (line 1)

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 2)

Address (line 1)

Address (line 2)

Address (line 3) City State/Country Zip Code

Name (line 1)

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Address (line 1)

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Address (line 3) City State/Country Zip Code

Application Number(s) or Patent Number(s)

Mark if additional numbers attached

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

Patent Application Number(s)

Patent Number(s)

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ASSIGNMENTPage 1 of 2
PD-99W047

WHEREAS, I, as below named sole inventor (if only one name is listed below) or joint inventor (if plural names are listed below) of the city and state as stated below next to my name, have invented a(an **GAS JET REMOVAL OF PARTICULATED SOIL FROM FABRIC** for which application for Letters Patent of the United States has been executed by me on or before this day, or (if the following is completed) filed on _____ as Serial No. _____; and

WHEREAS, RAYTHEON COMPANY, (hereinafter referred to as Raytheon), a Delaware Corporation, having its principal place of business in Lexington, Massachusetts, is desirous of acquiring the entire and exclusive right, title and interest in, to and under said invention, said application and any and all Letters Patent that may be granted therefor in the United States and throughout the world;

NOW, THEREFORE, in consideration of the obligations voluntarily assumed by me and set forth in an invention agreement between me and my employer, effective the date as stated below next to my name, and other good and valuable consideration, receipt of which is hereby acknowledged, I do hereby sell, assign and transfer to RAYTHEON, its successors, assigns or other legal representatives, the entire and exclusive right, title and interest in and to said invention invented by me, to said application and any and all applications which are continuations, continuations-in-part, divisions or substitutes of said application and any and all Letters Patent that may be granted therefor in the United States and throughout the world on any of said applications and to any and all reexaminations, reissues, renewals or extensions of said Letters Patent in the United States and throughout the world for the full term or terms for which said Letters patent may be granted in the United States and throughout the world; authorize and request The Commissioner of Patents and Trademarks of the United States and all foreign countries to issue all such Letters Patent to said RAYTHEON, its successors, assigns or other legal representatives; covenant that no assignment, sale, agreement, transfer or encumbrance has been, or will be, made or entered into which would conflict with this assignment, sale and transfer; and agree to communicate to RAYTHEON, its successors, assigns or other legal representatives, upon request and at no cost or expense to me, any facts known by me respecting said invention, do all lawful acts, including the execution and delivery of all papers and proper oaths and giving of testimony that is deemed necessary or desirable by RAYTHEON, its successors, assigns or other legal representatives with regard to said invention for protecting, obtaining, maintaining and enforcing any and all of said Letters Patent in the United States and throughout the world for said invention and for perfecting, affirming, recording and maintaining the title of RAYTHEON, its successors, assigns or other legal representatives, and generally cooperate to the fullest extent in all matters pertaining to said invention, and any and all of said Letters Patent and the title thereto in RAYTHEON, its successors, assigns or other legal representatives.

IN WITNESS WHEREOF, I have executed this instrument.

Sidney C. Chao July 8, 1999

FULL NAME OF SOLE OR JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
Sidney C. Chao	<i>Sidney C. Chao</i>	<i>July 7, 1999</i>
RESIDENCE (CITY AND STATE)		INVENTION AGREEMENT DATE
752 14 th Street, Manhattan Beach, California 90266		June 15, 1981

FULL NAME OF SOLE OR JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
Edna M. Purer		
RESIDENCE (CITY AND STATE)		INVENTION AGREEMENT DATE
828 N. Crescent Heights, Los Angeles, California 90046		September 8, 1981

FULL NAME OF SOLE OR JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
Nelson W. Sorbo		
RESIDENCE (CITY AND STATE)		INVENTION AGREEMENT DATE
605 Emerald Street, Redondo Beach, California 90277		July 1, 1991

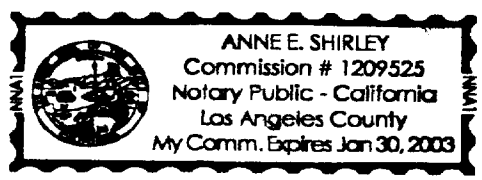
STATE OF California)
COUNTY OF Los Angeles)

SS:

On July 8, 1999 before me, Anne E. Shirley,
a Notary Public in and for said State, personally appeared Sidney chin Chao

personally known to me or proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.



Notary Public Anne E Shirley

ASSIGNMENTPage 1 of 2
PD-99W047

WHEREAS, I, as below named sole inventor (if only one name is listed below) or joint inventor (if plural names are listed below) of the city and state as stated below next to my name, have invented a(an **GAS JET REMOVAL OF PARTICULATED SOIL FROM FABRIC** for which application for Letters Patent of the United States has been executed by me on or before this day, or (if the following is completed) filed on _____ as Serial No. _____; and

WHEREAS, RAYTHEON COMPANY, (hereinafter referred to as Raytheon), a Delaware Corporation, having its principal place of business in Lexington, Massachusetts, is desirous of acquiring the entire and exclusive right, title and interest in, to and under said invention, said application and any and all Letters Patent that may be granted therefor in the United States and throughout the world;

NOW, THEREFORE, in consideration of the obligations voluntarily assumed by me and set forth in an invention agreement between me and my employer, effective the date as stated below next to my name, and other good and valuable consideration, receipt of which is hereby acknowledged, I do hereby sell, assign and transfer to RAYTHEON, its successors, assigns or other legal representatives, the entire and exclusive right, title and interest in and to said invention invented by me, to said application and any and all applications which are continuations, continuations-in-part, divisions or substitutes of said application and any and all Letters Patent that may be granted therefor in the United States and throughout the world on any of said applications and to any and all reexaminations, reissues, renewals or extensions of said Letters Patent in the United States and throughout the world for the full term or terms for which said Letters patent may be granted in the United States and throughout the world; authorize and request The Commissioner of Patents and Trademarks of the United States and all foreign countries to issue all such Letters Patent to said RAYTHEON, its successors, assigns or other legal representatives; covenant that no assignment, sale, agreement, transfer or encumbrance has been, or will be, made or entered into which would conflict with this assignment, sale and transfer; and agree to communicate to RAYTHEON, its successors, assigns or other legal representatives, upon request and at no cost or expense to me, any facts known by me respecting said invention, do all lawful acts, including the execution and delivery of all papers and proper oaths and giving of testimony that is deemed necessary or desirable by RAYTHEON, its successors, assigns or other legal representatives with regard to said invention for protecting, obtaining, maintaining and enforcing any and all of said Letters Patent in the United States and throughout the world for said invention and for perfecting, affirming, recording and maintaining the title of RAYTHEON, its successors, assigns or other legal representatives, and generally cooperate to the fullest extent in all matters pertaining to said invention, and any and all of said Letters Patent and the title thereto in RAYTHEON, its successors, assigns or other legal representatives.

IN WITNESS WHEREOF, I have executed this instrument.

FULL NAME OF SOLE OR JOINT INVENTOR Sidney C. Chao	INVENTOR'S SIGNATURE	DATE
RESIDENCE (CITY AND STATE) 752 14 th Street, Manhattan Beach, California 90266		INVENTION AGREEMENT DATE June 15, 1981

FULL NAME OF SOLE OR JOINT INVENTOR Edna M. Purer	INVENTOR'S SIGNATURE <i>Edna M. Purer</i>	DATE 7/9/89
RESIDENCE (CITY AND STATE) 828 N. Crescent Heights, Los Angeles, California 90046		INVENTION AGREEMENT DATE September 8, 1981

FULL NAME OF SOLE OR JOINT INVENTOR Nelson W. Sorbo	INVENTOR'S SIGNATURE	DATE
RESIDENCE (CITY AND STATE) 605 Emerald Street, Redondo Beach, California 90277		INVENTION AGREEMENT DATE July 1, 1991

STATE OF California)
 COUNTY OF Los Angeles)

SS:

On 7-9-99 before me, Kathleen M. Motta,
 a Notary Public in and for said State, personally appeared Edna M. Purer

personally known to me or proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.



Notary Public Kathleen M. Motta

ASSIGNMENTPage 1 of 2
PD-99W047

WHEREAS, I, as below named sole inventor (if only one name is listed below) or joint inventor (if plural names are listed below) of the city and state as stated below next to my name, have invented a(an **GAS JET REMOVAL OF PARTICULATED SOIL FROM FABRIC** for which application for Letters Patent of the United States has been executed by me on or before this day, or (if the following is completed) filed on _____ as Serial No. _____; and

WHEREAS, RAYTHEON COMPANY, (hereinafter referred to as Raytheon), a Delaware Corporation, having its principal place of business in Lexington, Massachusetts, is desirous of acquiring the entire and exclusive right, title and interest in, to and under said invention, said application and any and all Letters Patent that may be granted therefor in the United States and throughout the world;

NOW, THEREFORE, in consideration of the obligations voluntarily assumed by me and set forth in an invention agreement between me and my employer, effective the date as stated below next to my name, and other good and valuable consideration, receipt of which is hereby acknowledged, I do hereby sell, assign and transfer to RAYTHEON, its successors, assigns or other legal representatives, the entire and exclusive right, title and interest in and to said invention invented by me, to said application and any and all applications which are continuations, continuations-in-part, divisions or substitutes of said application and any and all Letters Patent that may be granted therefor in the United States and throughout the world on any of said applications and to any and all reexaminations, reissues, renewals or extensions of said Letters Patent in the United States and throughout the world for the full term or terms for which said Letters patent may be granted in the United States and throughout the world; authorize and request The Commissioner of Patents and Trademarks of the United States and all foreign countries to issue all such Letters Patent to said RAYTHEON, its successors, assigns or other legal representatives; covenant that no assignment, sale, agreement, transfer or encumbrance has been, or will be, made or entered into which would conflict with this assignment, sale and transfer; and agree to communicate to RAYTHEON, its successors, assigns or other legal representatives, upon request and at no cost or expense to me, any facts known by me respecting said invention, do all lawful acts, including the execution and delivery of all papers and proper oaths and giving of testimony that is deemed necessary or desirable by RAYTHEON, its successors, assigns or other legal representatives with regard to said invention for protecting, obtaining, maintaining and enforcing any and all of said Letters Patent in the United States and throughout the world for said invention and for perfecting, affirming, recording and maintaining the title of RAYTHEON, its successors, assigns or other legal representatives, and generally cooperate to the fullest extent in all matters pertaining to said invention, and any and all of said Letters Patent and the title thereto in RAYTHEON, its successors, assigns or other legal representatives.

IN WITNESS WHEREOF, I have executed this instrument.

FULL NAME OF SOLE OR JOINT INVENTOR Sidney C. Chao	INVENTOR'S SIGNATURE	DATE
RESIDENCE (CITY AND STATE) 752 14 th Street, Manhattan Beach, California 90266		INVENTION AGREEMENT DATE June 15, 1981

FULL NAME OF SOLE OR JOINT INVENTOR Edna M. Purer	INVENTOR'S SIGNATURE	DATE
RESIDENCE (CITY AND STATE) 828 N. Crescent Heights, Los Angeles, California 90046		INVENTION AGREEMENT DATE September 8, 1981

FULL NAME OF SOLE OR JOINT INVENTOR Nelson W. Sorbo	INVENTOR'S SIGNATURE <i>Nelson W. Sorbo</i>	DATE 7/14/99
RESIDENCE (CITY AND STATE) 605 Emerald Street, Redondo Beach, California 90277		INVENTION AGREEMENT DATE July 1, 1991

STATE OF California)
COUNTY OF Los Angeles)

SS:

On July 14, 1999 before me, Jill Vandenberg,
a Notary Public in and for said State, personally appeared Nelson W. Sorbo

personally known to me or proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.



Notary Public *Jill Vandenberg*