

ESCOBAR - URIBE ASOCIADOS

A B O G A D O S

Carrera 11A No. 94-76 Of. 305 - P.O. Box 94948, Santafé de Bogotá, Colombia, S.A.

Tels.: (571) 6162051 - 6162061 - 6162062

Fax: (571) 616188

SUPERINDUSTRIA Y COMERCIO

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SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO DIVISIÓN DE NUEVAS CREACIONES

E. S. D.

Re: Expediente No. 00.091.710
Solicitud de Patente en nombre de
ETHICON, INC.

Yo, JIMENA ESCOBAR URIBE, identificada como aparece al pie de mi firma, domiciliada en Bogotá, en la Carrera 11 A No. 94-76 Of. 305, obrando como apoderada de la sociedad ETHICON, INC., solicitante de la patente de la referencia, anexo al presente memorial los siguientes documentos:

Copia certificada de la solicitud de Patente Número 09/453,983 presentada en los Estados Unidos de América el día 2 de diciembre de 1999, con la debida traducción de lo pertinente, incluyendo el capítulo reivindicatorio.

A este mismo respecto, debe tenerse en cuenta que en la primera página de la copia en mención la Oficina de Patentes correspondiente certificó la fecha de presentación de esas solicitudes, cumpliéndose de esta forma todos y cada uno de los requisitos establecidos en el inciso segundo del artículo 10 de la Decisión 486 de la Comisión de la Comunidad Andina.

Señor Superintendente,



JIMENA ESCOBAR URIBE
C.C.39.779.452 de usaquén
T.P. 68228
Cód. 5376

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ESTADOS UNIDOS DE AMERICA
A TODOS AQUELLOS A QUIENES EL PRESENTE
LLEGUE:

DEPARTAMENTO DE COMERCIO DE LOS ESTADOS
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Enero 23, 2001

La presente es para certificar que el anexo es una copia fiel de los registros de la Oficina de Patentes y Marcas de los Estados Unidos, de los documentos de la solicitud de patente identificada más adelante, que cumplieron con los requerimientos para concederse una fecha de presentación de acuerdo con 35 USC 111.

Número de Solicitud: 09/453,983

Fecha de Presentación: Diciembre 2, 1999

Por la autoridad del
Comisionado de Patentes y Marca

(fdo) T. WALLACE
Oficial Certificador
Sello oficial de la Oficina de Patentes y Marcas de los
Estados Unidos de América

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REIVINDICACIONES

1.- Un ensamble de aguja que comprende: una aguja que tiene un extremo proximal de aguja, un extremo distal de aguja puntiaguda y una cánula de aguja que se extiende a través de la misma; un dispositivo de punta roma alargado que por lo menos está localizado parcialmente dentro de la cánula de la aguja, el dispositivo de punta roma alargado tiene un extremo proximal de elemento de punta roma, un extremo distal de dispositivo de punta roma, un pasaje de flujo de sangre de dispositivo de punta roma a través del mismo, mediante el cual la sangre puede fluir desde un extremo distal de dispositivo de punta roma hacia el extremo proximal del dispositivo de punta roma, y una abertura de salida de sangre del elemento de punta roma a través del cual la sangre puede fluir fuera del pasaje de flujo de sangre del elemento de punta roma; un elemento de sujeción de punta roma asegurado al extremo proximal del elemento de punta roma alargado, el elemento de sujeción de punta roma tiene una superficie que mira hacia la abertura de salida de sangre del elemento de punta roma con una cavidad definida entre la superficie y la abertura de salida de sangre del elemento de punta roma para que la sangre pueda fluir dentro de la cavidad; un elemento móvil que puede actuar para mover el elemento de sujeción de punta roma con relación a la aguja, el elemento de sujeción de punta roma con el movimiento relativo a la aguja, provoca el movimiento del elemento de punta roma alargado desde una posición retraída en donde el extremo distal del elemento de punta roma es retraído dentro de la cánula de aguja para que el extremo distal de la aguja puntiaguda pueda penetrar un cuerpo, a una posición extendida en donde el extremo

distal del elemento de punta roma se extiende fuera de la cánula de aguja para evitar que el extremo distal de la aguja puntiaguda penetre el cuerpo; y una cámara de evaporación que tiene un volumen interno que está en comunicación con la cavidad, para que la sangre pueda fluir desde la cavidad hacia el volumen interno, la cámara de evaporación por lo menos está elaborada parcialmente de un material a través del cual se puede apreciar la sangre cuando está localizada en el volumen interno.

2.- Un ensamble de aguja de conformidad con la reivindicación 1, caracterizado además porque el elemento de sujeción de punta roma incluye una porción de soporte principal que define la superficie y por lo menos dos ganchos extendidos desde la porción de soporte principal al elemento de punta roma alargado y están acoplados con el elemento de punta roma alargado por lo menos en dos diferentes lados del mismo.

3.- El ensamble de aguja de conformidad con la reivindicación 3, que comprende por lo menos tres de dichos ganchos que se acoplan con el elemento de punta roma alargado por lo menos en tres diferentes lados del mismo.

4.- El ensamble de aguja de conformidad con la reivindicación 1, caracterizado además porque el elemento de sujeción de punta roma tiene una abertura que recibe al elemento de punta roma dentro de la cual se inserta el extremo próximo del elemento de punta roma, un pasaje de salida de sangre que se forma en el elemento de sujeción de punta roma, a través del cual la sangre puede fluir desde la cavidad hacia el elemento de sujeción de punta roma.

5.- El ensamble de aguja de conformidad con la reivindicación 1, caracterizado además porque el elemento de sujeción de punta roma tiene una

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abertura que recibe al elemento de punta roma dentro de la cual se inserta el extremo proximal de elemento de punta roma, un pasaje de salida de sangre que se forma entre una superficie lateral del elemento de punta roma alargado y una superficie interna de la abertura que recibe al elemento de punta roma para que la sangre pueda fluir desde la cavidad hacia el elemento de sujeción de punta roma.

6.- El ensamble de aguja de conformidad con la reivindicación 1, que además incluye una formación de pinza que se ajusta en su posición cuando el dispositivo de punta roma alargado se mueve dentro de la posición extendida para que evite que el elemento de punta roma alargado se mueva de la posición extendida hacia la posición retraída.

7.- El ensamble de aguja de conformidad con la reivindicación 1, que incluye un catéter localizado alrededor de la aguja, el catéter es insertable, junto con la aguja dentro del cuerpo, en donde la aguja se puede retirar del cuerpo y fuera del catéter aunque el catéter se mantenga dentro del cuerpo.

8.- El ensamble de aguja de conformidad con la reivindicación 7, que incluye una formación de pinza que se ajusta en posición cuando el dispositivo de punta roma alargado se mueve a la posición extendida para que se evite que el elemento de punta roma alargado se mueva fuera de la posición extendida hacia la posición retraída

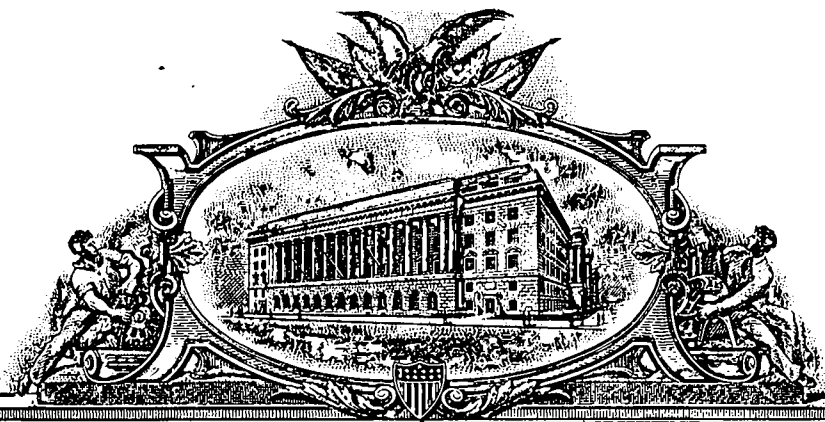
9.- El ensamble de aguja de conformidad con la reivindicación 1, que incluye un sello alrededor del dispositivo de punta roma alargado y entre el dispositivo de punta roma alargado y la cámara de evaporación para evitar sustancialmente la fuga de sangre fuera de la cámara de evaporación.

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10.- El ensamble de aguja de conformidad con la reivindicación 9, caracterizado además porque el sello de desliza sobre una superficie del dispositivo de punta roma alargado cuando el dispositivo de punta roma alargado se mueve desde la posición retraída hacia la posición extendida.

11.- El ensamble de aguja de conformidad con la reivindicación 1, que además comprende un elemento poroso que está elaborado de un material que permite que el aire pase a través de, pero que sustancialmente evite que pase la sangre a través de, el elemento poroso está localizado y formado para que el aire sea ventilado a través del mismo cuando la sangre fluya dentro del pasaje de flujo de sangre del elemento de punta roma debido a la naturaleza porosa del mismo; pero se evita sustancialmente que la sangre fluya a través del mismo.

12.- El ensamble de aguja de conformidad con la reivindicación 11, caracterizado además porque la cámara de evaporación tiene una abertura de tapón y el elemento poroso es un tapón poroso que cierra la abertura para que el aire sea ventilado a través del mismo, cuando la cámara de evaporación se llene con sangre, pero se evita sustancialmente que la sangre fluya a través de la misma, fuera de la cámara de evaporación.



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

January 23, 2001

THIS IS TO CERTIFY THAT ANNEXED HERETO IS A TRUE COPY FROM THE RECORDS OF THE UNITED STATES PATENT AND TRADEMARK OFFICE OF THOSE PAPERS OF THE BELOW IDENTIFIED PATENT APPLICATION THAT MET THE REQUIREMENTS TO BE GRANTED A FILING DATE UNDER 35 USC 111.

APPLICATION NUMBER: 09/453,983

FILING DATE: December 02, 1999



By Authority of the
COMMISSIONER OF PATENTS AND TRADEMARKS

T. Wallace
T. WALLACE

Certifying Officer

12-6-99

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PTO/SB/05 (12/97)

Approved for use through 09/30/00. OMB 0651-0032

Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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UTILITY PATENT APPLICATION TRANSMITTAL
(Only for new nonprovisional applications under 37 CFR 1.53(b))Attorney Docket No. 056301.P480Total Pages 5First Named Inventor or Application Identifier Donald D. SolomonExpress Mail Label No. EL234219453USADDRESS TO: Assistant Commissioner for Patents
Box Patent Application
Washington, D. C. 20231**APPLICATION ELEMENTS**

See MPEP chapter 600 concerning utility patent application contents.

1. X Fee Transmittal Form
(Submit an original, and a duplicate for fee processing)
2. X Specification (Total Pages 27)
(preferred arrangement set forth below)
 - Descriptive Title of the Invention
 - Cross References to Related Applications
 - Statement Regarding Fed sponsored R & D
 - Reference to Microfiche Appendix
 - Background of the Invention
 - Brief Summary of the Invention
 - Brief Description of the Drawings (if filed)
 - Detailed Description
 - Claims
 - Abstract of the Disclosure
3. X Drawings(s) (35 USC 113) (Total Sheets 9)
4. X Oath or Declaration (Total Pages 5) **Unexecuted**
 - a. Newly Executed (Original or Copy)
 - b. Copy from a Prior Application (37 CFR 1.63(d))
(for Continuation/Divisional with Box 17 completed) (Note Box 5 below)
 - i. **DELETIONS OF INVENTOR(S)** Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).
5. Incorporation By Reference (useable if Box 4b is checked)
The entire disclosure of the prior application, from which a copy of the oath or declaration is supplied under Box 4b, is considered as being part of the disclosure of the accompanying application and is hereby incorporated by reference therein.
6. Microfiche Computer Program (Appendix)

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PTO/SB/05 (12/97)

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7. _____ Nucleotide and/or Amino Acid Sequence Submission
(if applicable, all necessary)
a. _____ Computer Readable Copy
b. _____ Paper Copy (identical to computer copy)
c. _____ Statement verifying identity of above copies

ACCOMPANYING APPLICATION PARTS

8. _____ Assignment Papers (cover sheet & documents(s))
9. _____ a. 37 CFR 3.73(b) Statement (where there is an assignee)
_____ X b. Power of Attorney
10. _____ English Translation Document (if applicable)
11. _____ a. Information Disclosure Statement (IDS)/PTO-1449
_____ b. Copies of IDS Citations
12. _____ Preliminary Amendment
13. _____ X Return Receipt Postcard (MPEP 503) (Should be specifically itemized)
14. _____ a. Small Entity Statement(s)
_____ b. Statement filed in prior application, Status still proper and desired
15. _____ Certified Copy of Priority Document(s) (if foreign priority is claimed)
16. _____ X Other: Limited Recognition Under 37 C.F.R. § 10.9(b), Letter Regarding Limited
Recognition Under 37 C.F.R. § 10.9(b), Copy of postcard with Certificate of
Express Mailing pursuant to C.F.R. § 1.10.

17. **If a CONTINUING APPLICATION, check appropriate box and supply the requisite information:**
_____ Continuation _____ Divisional _____ Continuation-in-part (CIP)
of prior application No: _____

18. **Correspondence Address**
_____ Customer Number or Bar Code Label _____
(Insert Customer No. or Attach Bar Code Label here)
or
_____ X Correspondence Address Below

NAME Stephen M. De Klerk, Under 37 C.F.R. § 10.9(b)
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

ADDRESS 12400 Wilshire Boulevard
Seventh Floor

CITY Los Angeles STATE California ZIP CODE 90025-1026

Country U.S.A. TELEPHONE (408) 720-8598 FAX (408) 720-9397

12/01/97

- 2 -

PTO/SB/05 (12/97)

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Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

12/02/99
10525 U.S. PTO

EXPRESS MAIL CERTIFICATE OF MAILING

"Express Mail" mailing label number: EL234219453US

Date of Deposit: December 2, 1999

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Deborah A. McGovern
(Typed or printed name of person mailing paper or fee)

DMcGovern
(Signature of person mailing paper or fee)

December 2, 1999
(Date signed)

Serial/Patent No. Not Yet Assigned Filing/Issue Date Herewith

Client Johnson & Johnson

Title A NEEDLE ASSEMBLY HAVING AN ELONGATE BLUNTING DEVICE WHICH
ALLOWS FOR VENTING OF AIR

STZ File No. 056301-P480 Invention/Utility/Design Initials SMD/dam

Date Mailed December 2, 1999 Docket Due Date ***

The following has been received in the U.S. Patent & Trademark Office on the date stamped hereon:

☒ Application - Utility (27) <u>pp.</u> with cover and abstract	☒ Request for Examination (36) <u>pp.</u>
☒ Application - Rule 1.3(b) Continuation (36) <u>pp.</u>	☒ Preliminary Amendment (27) <u>pp.</u>
☒ Application - Rule 1.3(b) Divisional (36) <u>pp.</u>	☒ Notice of Appeal
☒ Application - Rule 1.3(b) CIP (36) <u>pp.</u>	☒ Petition for Extension of Time
☒ Application - Rule 1.3(d) CIPA Transmittal (36) <u>pp.</u>	☒ Petition for
☒ Application - Design (36) <u>pp.</u>	☒ Postcard
☒ Application - PCT (36) <u>pp.</u>	☒ Power of Attorney (27) <u>pp.</u>
☒ Application - Provisional (36) <u>pp.</u>	☒ Preliminary Amendment (27) <u>pp.</u>
☒ Assignment and Cover Sheet	☒ Reply Brief (36) <u>pp.</u>
☒ Certificate of Mailing	☒ Response to Notice of Missing Parts
☒ Declaration & POA (36) <u>pp.</u>	☒ Small Entity Declaration for Patent Invention/Small Business
☒ Election Data & Copy of Transmittal (36) <u>pp.</u>	☒ Transmittal Letter in duplicate
☒ Drawings: <u>9</u> sheets include <u>10</u> figures	☒ Fee Transmittal in duplicate

☒ Other: Limited Recognition under 37 C.F.R. § 10.9(b); Letter Regarding Limited Recognition under 37 C.F.R. § 10.9(b); Copy of postcard with Certificate of Express Mailing Pursuant to C.F.R. § 1.10.

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UNITED STATES PATENT APPLICATION

for

A NEEDLE ASSEMBLY HAVING AN ELONGATE BLUNTING DEVICE
WHICH ALLOWS FOR VENTING OF AIR

Inventors:

Donald D. Solomon

Michael L. Miller

Prepared by:

BLAKELY SOKOLOFF TAYLOR & ZAFMAN
12400 Wilshire Boulevard
Los Angeles, CA 90025-1026
(408) 720-8598

Attorney Docket No.: 056301.P480

"Express Mail" mailing label number: EL234219453US

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Deborah A. McGovern

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December 2, 1999

(Date signed)

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A NEEDLE ASSEMBLY HAVING AN ELONGATE BLUNTING DEVICE
WHICH ALLOWS FOR VENTING OF AIR

5 BACKGROUND OF THE INVENTION

1) Field of the Invention

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10 This invention relates to a needle assembly having a needle with a sharp
needle distal end, and an elongate blunting device which can be used to prevent
penetration trauma by the sharp needle distal end.

2) Discussion of Related Art

15 Needle assemblies are used for various medical purposes such as
withdrawing fluids from a body of a person, in particular blood from a vein or
an artery, providing fluids to a body of a person or for inserting an object such as
a catheter into a vein or an artery.

A needle assembly includes a needle having a sharp needle distal end.
20 The sharp needle distal end is used to pierce a body and is inserted into fluids in
the body. Body fluids may include viruses which can transfer diseases to
medical personnel. Once the needle is removed from the body, care should be

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taken that the sharp needle distal end does not penetrate into the body of any medical personnel.

5 An elongate blunting device may be used for preventing penetration trauma of such a sharp needle distal end. The elongate blunting device may be located within a needle canula of the needle and be moveable by a shifting member from a retracted position wherein a blunting device distal end of the elongate blunting device is retracted into the needle canula, to an extended position wherein the blunting device distal end extends out of the needle canula, thereby preventing the sharp needle distal end from penetrating the body of any
10 medical personnel.

00453032-120200
15 A blood flow passage can be provided through the needle and a flash chamber may be in communication with the blood flow passage so that blood can flow from the blood flow passage into an internal volume of the flash chamber. The flash chamber is typically made of a material through which blood can be seen when located within the internal volume. Medical personnel can then see when the sharp needle distal end pierces a vein or artery because blood would then flow from the sharp needle distal end into the internal volume of the flash chamber. In order for blood to flow from the sharp needle distal end into the flash chamber it is required that air located within passages within the needle
20 assembly be vented out of these passages. The present invention primarily concerns itself with venting of air from such passages.

SUMMARY OF THE INVENTION

The invention generally relates to a needle assembly of the kind having a needle, an elongate blunting device, a shifting member, and a flash chamber.

- 5 The needle is of the kind that has a needle proximal end, a sharp needle distal end and a needle canula extending therethrough. The elongate blunting device is at least partially located within the needle canula. The elongate blunting device is of the kind that has a blunting device proximal end, a blunting device distal end, and a blunting device blood flow passage therethrough through
- 10 which blood can flow from the blunting device distal end to the blunting device proximal end. The shifting member can be actuated to move relative to the needle and, upon movement relative to the needle, causes movement to the elongate blunting device from a retracted position wherein the blunting device distal end is retracted into the needle canula so that the sharp needle distal end
- 15 can penetrate the body, to an extended position wherein the blunting device distal end extends out of the needle canula so as to prevent the sharp needle distal end from penetrating the body. The flash chamber is of the kind that has an internal volume which in communication with the blunting device blood flow passage so that the blood can flow from the blunting device blood flow passage
- 20 into the internal volume. The flash chamber is at least partially made of a material through which blood can be seen when located in the internal volume.

According to one aspect of the invention, an air venting passage is

67

provided in the blunting device proximal end through which air can be vented from the blunting device blood flow passage substantially in a direction in which blood flows through the blunting device blood flow passage.

The air venting passage may, for example, be an air venting opening
5 having dimensions which allow air through but which substantially prevent blood through. Alternatively, the air venting passage may be provided by a porous member which allows air through but which substantially prevents blood through.

According to another aspect of the invention an air venting passage is
10 provided through which air can be vented from the blunting device blood flow passage. When blood flows into the blunting device blood flow passage, the air venting passage substantially prevents the blood from flowing therethrough.

According to another aspect of the invention the elongate blunting device
may include an elongate blunting member and a blunt holding member. The
15 elongate blunting member is at least partially located within the needle canula and has a blunting member proximal end, a blunting member distal end, and a blunting member blood flow passage through which blood can flow from the blunting member distal end to the blunting member proximal end. The elongate blunting member has a blunting member blood exit opening through which the
20 blood can flow out of the blunting member blood flow passage. The blunt holding member is secured to the proximal end of the elongate blunting member and has a surface facing the blunting member blood exit opening with a cavity.

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defined between the surface and the blunting member exit opening so that blood can flow into the cavity. The internal volume of the flash chamber is in communication with the cavity so that blood can flow from the cavity into the internal volume.

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BRIEF DESCRIPTION OF THE DRAWINGS

The invention is further described by way of examples with reference to the accompanying drawings wherein like references indicate like components

5 and wherein:

Figure 1 is a sectioned side view of a needle assembly according to one embodiment of the invention, wherein an elongate blunting device thereof is located in a retracted position;

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Figure 2 is a view similar to Figure 1 wherein the elongate blunting device is in an extended position;

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Figure 3 is a perspective view of the elongate blunting device of Figure 1 showing in more detail a blood exit passage;

Figure 4 is a perspective view of an elongate blunting device having a passage forming member which is inserted into a slot of a blunt holding member;

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Figure 5 is a perspective view of an elongate blunting device having a porous plug which is inserted into a slot of a blunt holding member, the porous plug serving as an air venting passage;

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Figure 6 is a perspective view of an elongate blunting device having a porous plug inserted into a proximal end of a blunt holding member;

5 Figure 7 is a sectioned side view of a needle assembly according to an alternative embodiment of the invention;

Figure 8 is a perspective view of an elongate blunting device which is used in the needle assembly of Figure 7;

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Figure 9 is a perspective view of an elongate blunting device including a blunt holding member having claws which engage with an elongate blunting member; and

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Figure 10 is a perspective view of an elongate blunting device which includes a blunt holding member having a blunt receiving opening into which an elongate blunting member is inserted, the opening having grooves which define exit passages through which blood can flow.

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DESCRIPTION OF PREFERRED EMBODIMENTS

Figure 1 of the accompanying drawings illustrates a needle assembly 20 which includes a main body 22, a needle 24, a catheter component 26, and an
5 elongate blunting device 28.

The main body 22 includes a flash chamber 30, and an external ledge 32. The flash chamber 30 is formed by first and second tubular portions 34 and 36 respectively. The first and second tubular portions 34 and 36 are in communication with one another so as to define a continuous internal volume
10 38. The entire flash chamber 30 is made of a transparent or translucent plastics material through which blood can be seen when located within the internal volume 38. A proximal end of the first tubular portion 34 is open and a seal in the form of an O-ring 40 is located in a mouth of a proximal end of the first tubular portion 34. A proximal end of a second tubular portion 36 is open. A
15 plug 42 is inserted into and closes off the proximal end of the second tubular portion 36. A core 44 of the plug 42 is made up of a porous material which can allow air through that which substantially prevents blood through. The core 44 typically has pore sizes of about 50 micron.

The needle 24 has a needle proximal end 46 and a sharp needle distal end
20 48. The needle proximal end 46 is secured to a distal end of the first tubular portion 34. A canula 50 is formed through the needle 24 and an opening is formed in the distal end of the first tubular portion 34 so that the needle canula

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50 is in communication with the internal volume 38 in the first tubular portion 34.

The elongate blunting device 28 includes an elongate blunting member 54 and a blunt holding member 56. The elongate blunting member 54 has a blunting member proximal end 58 and a blunting member distal end 60. A blunting member blood flow passage 62 is formed through the elongate blunting member 54. The blunting member blood flow passage 62 has a blunting member blood entry opening 64 at the blunting member distal end 60, and a blunting member blood exit opening 66 at the blunting member proximal end 58.

The blunt holding member 56 has a blunt holding member distal end 68 and a blunt holding member proximal end 70. A blunt holding member blood flow passage 72 is formed into the blunt holding member distal end 68. A blunting member receiving opening 74 is also formed in the blunt holding member distal end 68. The blunting member receiving opening 74 is slightly larger in diameter and shorter than the blunt holding member blood flow passage 72. The blunting member proximal end 58 is inserted into the blunting member receiving opening 74. The blunting member proximal end 58 fits into the blunting member receiving opening 74 with a friction fit or a transition fit. The blunting member distal end 60 thereby forms a blunting device distal end 60 of the elongate blunting device 28, and the blunt holding member proximal end 70 forms a blunting device proximal end 70 of the elongate blunting device 28. The blunting member blood flow passage 62 and the blunt holding member

73

blood flow passage 72 jointly form a blunting device blood flow passage 80 through the elongate blunting device 28.

An air venting passage in the form of an air venting opening 82 is formed in the blunting device proximal end 70. The air venting opening 82 extends in a direction in which the blunting device blood flow passage 80 extends. The blunting device blood flow passage 80 has a center line, and the air venting opening 84 has a center line which substantially coincides with the center line of the blunting device blood flow passage 80. The air venting opening 82 has a cross-dimension, or a diameter, which is sufficient for air to be vented therethrough, but is small enough so as to substantially prevent blood from flowing therethrough. The diameter of the air venting opening 84 is typically about 250 micron or less and typically has a length of about 2.5mm.

A blood exit passage 86 is formed in a side of the blunt holding member 56 and extends from the blunt holding member blood flow passage 72 out of the blunt holding member 56.

The blunting member distal end 60 is inserted from the proximal end of the first tubular portion 34 through the O-ring 40 and from there into the needle canula 50. The O-ring 40 is located and seals on an outer surface of the blunt holding member 56. The blunt holding member blood flow passage 72 is placed in communication with the internal volume 38 via the blood exit passage 86.

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As shown in Figure 1, the elongate blunting device 28 is located in a retracted position wherein the blunting member distal end 60 is retracted into the needle canula 50.

A shifting member 84 is secured to the blunting device proximal end 70.

5 The shifting member 84 includes a first portion 87 extending away from the blunt holding member 56, and a second portion 88 extending from the first portion 87 to the catheter component 26. The shifting member 84 has a clip formation 90. The shifting member 84 is bent against spring action thereof towards the flash chamber 30 and kept in such a position by the external ledge 34 with the clip
10 formation 90 located against the external ledge 32.

The catheter component 26 includes a catheter 92 and a luer 94. A proximal end of the catheter 92 is secured to a distal end of the luer 94. The catheter component 26 has a catheter passage 96 formed therethrough. The needle 24 is inserted into the catheter passage 96 so that the catheter component
15 26 is located around the needle 24.

The luer 94 has a luer lock formation 98 which engages with a complementary locking formation 100 on a distal end of the shifting member 94. The catheter component 26 is thus connected via the shifting member 84 to the elongate blunting device 28. Movement of the catheter component along the
20 needle 24 causes corresponding movement of the elongate blunting member 64 along the needle 24.

In use the sharp needle distal end 48 is used to pierce a body such as a

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vein or an artery of a person. The needle 24 and the catheter 92 are then inserted into the body together. The blunting device blood flow passage 80 and the internal volume 38 are initially filled with air. Blood flows into the needle canula 50 of the sharp needle distal end 48 when the sharp needle distal end 48 pierces a

5 vein or an artery. The blood flows from the needle canula 50 through the blunting member blood entry opening 64 into the blunting member blood flow passage 62. The blood creates a pressure on the air located in the blunting device blood flow passage 80. The air enters the air venting opening 82 in the same direction that the blood flows into the blunting member blood flow passage 62.

10 The air then flows through the air venting opening 82 and leaves the air venting opening 82 in the same direction as the direction in which the air enters the air venting opening 82. The air is so efficiently vented to atmosphere. The blood continues to flow into the blunting device blood flow passage 80 from the blunting member distal end 60 to the blunt holding member proximal end 70

15 until all the air located within the blunting device blood flow passage 80 is vented through the air venting opening 82 and the entire blunting device blood flow passage 80 is filled with blood.

Because of the dimensions of the air venting opening 82, the blood within the venting device blood flow passage 80 is prevented from flowing through the

20 air venting opening 82. The blood flows from the blunting device blood flow passage 80 through the blood exit passage 86 into the internal volume 38. A leaktight interface between the blunt holding member 56 and the O-ring 40

prevents blood from leaking past the blunt holding member 56. The blood creates a pressure on the air located within the internal volume 38. The air is vented through the core 44 of the plug 42 due to the porous nature of the core 34. The blood continues to flow through the internal volume 38 until all the air is vented through the core 44 and the entire internal volume 38 is filled with blood. The blood is, however, prevented from flowing through the core 44 of the plug 42. Because of the transparent or translucent material of the flash chamber 30, a person can then see the blood located within the internal volume 38, thus allowing the person to determine when the sharp needle distal end 48 pierces a vein or artery.

Once the catheter 92 is located in a required position, the needle 24 is pulled out of the catheter component 26 as shown in Figure 2. The O-ring 40 slides on a surface of the blunt holding member 56 thus allowing for movement of the elongate blunting device 28 relative to the flash chamber 30. Because of a connection between the catheter component 26 and the elongate blunting device 28, the elongate blunting member 54 remains in a substantially stationary location relative to the catheter 92 when the needle 24 is partially removed from the body and partially out of the catheter 92. The elongate blunting member 44 thereby moves relative to the needle 24 from the retracted position to an extended position wherein the blunting member distal end 60 extends out of the needle canula 50. The shifting member 84 is thus actuated by the catheter component 26 to move relative to the needle 24 and, upon movement relative to

77

the needle 24, causes movement of the elongate blunting member 54 from the retracted position to the extended position.

While the needle 24 is moved out of the catheter 92, the clip formation 90 slides along the external ledge 32. The clip formation 90 ultimately snaps into position behind a complementary formation 102 and the external ledge 32 due to spring action of the shifting member 84. The locking formation 100 moves away from the luer lock formation 98 thus disconnecting the catheter component 26 from the shifting member 84. The needle 24 and the elongate member are then together removed out of the catheter component 26 while the catheter 92 remains within the body.

After the needle 24 and the elongate blunting member 54 are moved out of the catheter component 26, the blunting member distal end 60 prevents the sharp needle distal end 48 from penetrating another body. The elongate blunting member 54 is prevented from moving out of the extended position because of the clip formation 90 which engages with the formation 102 on the external ledge 32. The needle assembly 20 can then be safely dispensed of with a substantially reduced likelihood that the sharp needle distal end 48 would cause penetration trauma

Figure 3 illustrates a portion of the elongate blunting device 28 and the shifting member 84. The air venting opening 82 is a micro hole which may be injection molded at the time when the blunt holding member 56 and the shifting member 84 are molded. Alternatively, the air venting opening 82 may be a micro

78

hole which is lazer drilled after the blunt holding member 56 and the shifting member 84 are molded.

Figure 4 illustrates a portion of an elongate blunting device 28A according to an alternative embodiment of the invention. The elongate blunting device 28A includes a blunt holding member 56A and an elongate blunting member 54A as in the embodiment hereinbefore described. A slot 112 is formed in the side of the blunt holding member 56A. The elongate blunting device 28A further includes a passage forming member 114. The passage forming member 114 has an air venting opening 84A therethrough. The air venting opening 84A is a micro hole which may be lazer drilled or injection molded in the passage forming member 114.

The passage forming member 114 is inserted into the slot 112 with a friction fit or a transition fit. The passage forming member 114 is thereby secured to the blunt holding member 56A in a position wherein a blood channeling cavity 116 is defined by surfaces of the slot 112 in the blunt holding member 56A and by a surface of the passage forming member 114. Blood flows from the elongate blunting member 54A into the blood channeling cavity 116 and from the blood channeling cavity into the internal volume (reference numeral 38 in Figure 1) of the flash chamber (reference numeral 40 in Figure 1).

An advantage of the elongate blunting device 28A of Figure 4 is that it can be easily to manufactured by separately manufacturing the blunt holding

member 56A and the passage forming member 114, and manufacturing the air venting opening 82A under more controlled conditions.

Figure 5 illustrates an elongate blunting device 28B according to another embodiment of the invention. The elongate blunting device 28B also includes a blunt holding member 26B and an elongate blunting device 54B. As with the embodiment of Figure 4, the blunt holding member 26B has a slot 112A. The elongate blunting device 28B further includes a porous plug 120. The porous plug 120 is inserted into the slot 112 with a friction fit or a transition fit. The porous plug 120 is thereby secured to the blunt holding member 56B so that a blood channeling cavity 116A is defined by surfaces of the slot 112 and a surface of the porous plug 120.

Blood flows from the elongate blunting member 54B into the blood channeling cavity 116A. The porous plug 120 is made of a porous material which allows air through but substantially prevents blood through. The porous plug 120 typically has pore sizes of about 50 micron a length of about 2.5mm and a width of about 1mm. Air can thus be vented through the porous plug 120 to atmosphere. The porous plug 120 thereby defines an air venting passage through which the air is vented, but substantially prevents the blood from flow pass through. The blood flows from the blood channeling cavity 116A to an internal volume of a flash chamber.

Figure 6 illustrates an elongate blunting device 28C according to yet a further embodiment of the invention. The elongate blunting device 28C, as in the

embodiment hereinbefore described, includes a blunt holding member 56C and an elongate blunting member 54C secured thereto. A slot 124 is formed in the side of the blunt holding member 56C. The slot 124 is "blind" in the sense that the slot is formed only in a distal end of the blunt holding member 56C.

5 A blunt opening 126 is formed into a proximal end of the blunt holding member 56C. The blunt opening 126 extends into the blunt holding member 56C substantially in a direction opposite to the direction in which blood flows through the elongate blunting member 54C. A porous plug 128 is inserted into the plug opening 126 in a direction opposite to the direction in which the blood
10 flows through the elongate blunting member 54C. An air connection opening 130 interconnects the slot 124 and the blunt opening 126. A blood channeling opening is defined within the confines of a distal surface of the porous plug 128, a surface of the opening 130, and surfaces of the slot 132. Air is vented through the blood channeling cavity 132, and then through the porous plug 128 due to
15 the porous nature thereof. The blood is however prevented from passing through the porous plug 128. The blood flows from the blood channeling cavity 132 to an internal volume of a flash chamber.

As shown in Figure 6, an O-ring 144 may be located in a stationary position around the blunt holding member 56C. The O-ring 144 is slideably
20 engaged and seals with a flash chamber. Movement of the elongate blunting device 128 relative to a needle causes sliding movement of the O-ring 144 against a surface of a flash chamber. The embodiments hereinbefore described may

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utilize a similar O-ring 144 instead of an O-ring such as the O-ring 40 in Figure 1 which slides on the blunt holding member 56.

Figure 7 illustrates a needle assembly 220 according to an alternative embodiment of the invention. As with the needle assembly 20 of Figure 2, the
5 needle assembly 220 includes a main body 222, a needle 224, a catheter component 226, an elongate blunting device 228, an external ledge 232, and a shifting member 284. The elongate blunting device 228 includes an elongate blunting member 254, and a blunt holding member 256. A blunt holding member blood flow passage 272 is formed in the blunt holding member 256. A
10 proximal end of the elongate blunting member 254 is inserted into the blunt holding member blood flow passage 272. No air venting passage is provided such as the air venting opening 82 in the embodiment of Figure 1. Instead, the blunt holding member 256 has an internal surface 274 facing a blunting member blood exit opening 266 of a blunting member blood flow passage 262 in the
15 elongate blunting member 254. A cavity 290 is defined between the surface 274 and a proximal end of the elongate blunting member 254. Air is vented through an exit passage 286 in a side of the blunt holding member 256 to an internal volume 238 in a flash chamber 230 and through a core 244 of a plug 242. The
embodiment of Figure 7 is the same as the embodiment of Figure 1 in all other
20 respects.

84
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Figure 8 illustrates the elongate blunting device 228 of Figure 7 in more detail. It can be seen that the exit opening 286 is entirely defined and circumscribed by the blunt holding member 256.

Figure 9 illustrates an elongate blunting device 300 according to a further embodiment of the invention. The elongate blunting device 300 includes a blunt holding member 302 and an elongate blunting member 304.

The blunt holding member 302 includes a proximal main support portion 306 and three claws 308 extending from the main support portion 306. The main support portion 306 has a surface located between the claws 308. A proximal end of the elongate blunting member 304 is inserted between the claws 308. The claws 308 engage with the elongate blunting member 304 on three different sides thereof.

A cavity 312 is defined between the surface 310 and the proximal end of the elongate blunting member 304. Blood flows from the elongate blunting member 304 into the cavity 312. Three exit openings are defined between respective pairs of the claws 308 so the blood can flow from the cavity 312 through the exit openings out of the elongate blunting device 300.

Figure 10 illustrates a further embodiment of an elongate blunting device 330 according to the invention. The elongate blunting device 330 includes a blunt holding member 332 and an elongate blunting member 334. A blunt receiving opening 336 is formed into a distal end of the blunt holding member

332. The blunt holding member 332 has a surface 338 in a base of the blunt holding opening 336.

A proximal end of the elongate blunting member 334 is inserted into the blunt receiving opening 336. A cavity 340 is defined between the proximal end
5 of the elongate blunting member 334 and the surface 338. Blood can flow into the cavity 340.

Three grooves 342 are formed on a surface of the blunt receiving opening 336 facing a side of the elongate blunting member 334. Each groove 342 allows
10 for a respective blood exit passage 344 to be defined between a side surface of the elongate blunting member 334 and an inner surface of the blunt holding member 332. Blood can flow from the cavity 340 through each blood exit passage 344 out of the elongate blunting device 330.

While certain exemplary embodiments have been described and shown in the accompanying drawings, it is to be understood that such embodiments are
15 merely illustrative and not restrictive of the current invention, and that this invention is not restricted to the specific constructions and arrangements shown and described, since modifications may occur to those ordinarily skilled in the art.

86
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CLAIMS

What is claimed:

- 1 1. A needle assembly comprising:
 - 2 a needle having a needle proximal end, a sharp needle distal end, and a
 - 3 needle canula extending therethrough;
 - 4 an elongate blunting device which is at least partially located within the
 - 5 needle canula, the elongate blunting device having a blunting member proximal
 - 6 end, a blunting device distal end, a blunting device blood flow passage
 - 7 therethrough through which blood can flow from the a blunting device distal
 - 8 end to the blunting device proximal end, and a blunting member blood exit
 - 9 opening through which the blood can flow out of the blunting member blood
 - 10 flow passage;
 - 11 a blunt holding member secured to the proximal end of the elongate
 - 12 blunting member, the blunt holding member having a surface facing the blunting
 - 13 member blood exit opening with a cavity defined between the surface and the
 - 14 blunting member blood exit opening so that the blood can flow into the cavity;
 - 15 a shifting member which can be actuated to move the blunt holding
 - 16 member relative to the needle, the blunt holding member upon movement
 - 17 relative to the needle, causing movement of the elongate blunting member from
 - 18 a retracted position wherein the blunting member distal end is retracted into the
 - 19 needle canula so that the sharp needle distal end can penetrate a body, to an

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20 extended position wherein the blunting member distal end extends out of the
21 needle canula so as to prevent the sharp needle distal end from penetrating the
22 body; and

23 a flash chamber having an internal volume which is in communication
24 with the cavity so that the blood can flow from the cavity into the internal
25 volume, the flash chamber being at least partially made of a material through
26 which the blood can be seen when located in the internal volume.

1 2. A needle assembly according to claim 1 wherein the blunt holding
2 member includes a main support portion defining the surface and at least two
3 claws extended from the main support portion to the elongate blunting member
4 and are engaged with the elongate blunting member on at least two different
5 sides thereof.

1 3. A needle assembly according to claim 3 comprising at least three of said
2 claws engaging with the elongate blunting member on at least three different
3 sides thereof.

1 4. A needle assembly according to claim 1 wherein the blunt holding
2 member has a blunting member receiving opening into which the blunting
3 member proximate end is inserted, a blood exit passage being formed in the
4 blunt holding member, through which the blood can flow from the cavity out of

86

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4 moving out of the extended position towards the retracted position.

1 9. A needle assembly according to claim 1 which includes a seal around the
2 elongate blunting device and between the elongate blunting device and the flash
3 chamber so as to substantially prevent leakage of blood out of the flash chamber.

1 10. A needle assembly according to claim 9 wherein the seal slides on a
2 surface of the elongate blunting device when the elongate blunting device moves
3 from the retracted position to the extended position.

1 11. A needle assembly according to claim 1 further comprising a porous
2 member which is made of a material which allows air through but substantially
3 prevents blood through, the porous member being located and formed so that air
4 is vented therethrough when blood flows into the blunting member blood flow
5 passage due to the porous nature thereof, but blood is substantially prevented
6 from flowing therethrough.

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88

- 1 12. A needle assembly according to claim 11 wherein the flash chamber has a
- 2 plug aperture and the porous member is a porous plug which closes off the
- 3 opening so that air is vented therethrough when the flash chamber fills with
- 4 blood, but blood is substantially prevented from flowing therethrough out of the
- 5 flash chamber.

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ABSTRACT OF THE DISCLOSURE

The invention generally relates to a needle assembly of the kind having a needle, an elongate blunting device, a shifting member, and a flash chamber.

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The needle is of the kind that has a needle proximal end, a sharp needle distal
5 end and a needle canula extending therethrough. The elongate blunting device
is at least partially located within the needle canula. The elongate blunting
device is of the kind that has a blunting device proximal end, a blunting device
distal end, and a blunting device blood flow passage therethrough through
10 proximal end. The shifting member can be actuated to move relative to the
needle and, upon movement relative to the needle, causes movement to the
elongate blunting device from a retracted position wherein the blunting device
distal end is retracted into the needle canula so that the sharp needle distal end
can penetrate the body, to an extended position wherein the blunting device
15 distal end extends out of the needle canula so as to prevent the sharp needle
distal end from penetrating the body. The flash chamber is of the kind that has
an internal volume which in communication with the blunting device blood flow
passage so that the blood can flow from the blunting device blood flow passage
into the internal volume. The flash chamber is at least partially made of a
20 material through which blood can be seen when located in the internal volume.

DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below, next to my name.

I believe I am the original, first, and sole inventor (if only one name is listed below) or an original, first, and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

A NEEDLE ASSEMBLY HAVING AN ELONGATE BLUNTING DEVICE WHICH ALLOWS FOR
VENTING OF AIR

the specification of which

X is attached hereto.
— was filed on _____ as
United States Application Number _____
or PCT International Application Number _____
and was amended on _____
(if applicable)

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claim(s), as amended by any amendment referred to above. I do not know and do not believe that the claimed invention was ever known or used in the United States of America before my invention thereof, or patented or described in any printed publication in any country before my invention thereof or more than one year prior to this application, that the same was not in public use or on sale in the United States of America more than one year prior to this application, and that the invention has not been patented or made the subject of an inventor's certificate issued before the date of this application in any country foreign to the United States of America on an application filed by me or my legal representatives or assigns more than twelve months (for a utility patent application) or six months (for a design patent application) prior to this application.

I acknowledge the duty to disclose all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, Section 119(a)-(d), of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

93
91

Prior Foreign Application(s)

Priority
Claimed

<u>(Number)</u>	<u>(Country)</u>	<u>(Day/Month/Year Filed)</u>	<u>Yes</u>	<u>No</u>
<u>(Number)</u>	<u>(Country)</u>	<u>(Day/Month/Year Filed)</u>	<u>Yes</u>	<u>No</u>
<u>(Number)</u>	<u>(Country)</u>	<u>(Day/Month/Year Filed)</u>	<u>Yes</u>	<u>No</u>

I hereby claim the benefit under title 35, United States Code, Section 119(e) of any United States provisional application(s) listed below:

<u>(Application Number)</u>	<u>Filing Date</u>
<u>(Application Number)</u>	<u>Filing Date</u>

I hereby claim the benefit under Title 35, United States Code, Section 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, Section 112, I acknowledge the duty to disclose all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

<u>(Application Number)</u>	<u>Filing Date</u>	<u>(Status -- patented, pending, abandoned)</u>
<u>(Application Number)</u>	<u>Filing Date</u>	<u>(Status -- patented, pending, abandoned)</u>

I hereby appoint the persons listed on Appendix A hereto (which is incorporated by reference and a part of this document) as my respective patent attorneys and patent agents, with full power of substitution and revocation, to prosecute this application and to transact all business in the Patent and Trademark Office connected herewith.

Send correspondence to Stephen M. De Klerk, BLAKELY, SOKOLOFF, TAYLOR &
(Name of Attorney or Agent)
ZAFMAN LLP, 12400 Wilshire Boulevard 7th Floor, Los Angeles, California 90025 and direct
telephone calls to Stephen M. De Klerk, (408) 720-8598.
(Name of Attorney or Agent)

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94
92

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full Name of Sole/First Inventor Donald D. Solomon

Inventor's Signature _____ Date _____

Residence Southlake, Texas Citizenship U.S.A.
(City, State) (Country)

Post Office Address 900 Nottingham Court
Southlake, TX 76092

Full Name of Second/Joint Inventor Michael L. Miller

Inventor's Signature _____ Date _____

Residence Arlington, Texas Citizenship _____
(City, State) (Country)

Post Office Address 2626 Scenic Point Trail, Apt. 2431
Arlington, TX 76006

Full Name of Third/Joint Inventor _____

Inventor's Signature _____ Date _____

Residence _____ Citizenship _____
(City, State) (Country)

Post Office Address _____

Full Name of Fourth/Joint Inventor _____

Inventor's Signature _____ Date _____

Residence _____ Citizenship _____
(City, State) (Country)

Post Office Address _____

93

APPENDIX A

William E. Alford, Reg. No. 37,764; Farzad E. Amini, Reg. No. P42,261; Aloysius T. C. AuYeung, Reg. No. 35,432; William Thomas Babbitt, Reg. No. 39,591; Carol F. Barry, Reg. No. 41,600; Jordan Michael Becker, Reg. No. 39,602; Bradley J. Bereznak, Reg. No. 33,474; Michael A. Bernadicou, Reg. No. 35,934; Roger W. Blakely, Jr., Reg. No. 25,831; Gregory D. Caldwell, Reg. No. 39,926; Ronald C. Card, Reg. No. P44,587; Thomas M. Coester, Reg. No. 39,637; Stephen M. De Klerk, under 37 C.F.R. § 10.9(b); Michael Anthony DeSanctis, Reg. No. 39,957; Daniel M. De Vos, Reg. No. 37,813; Robert Andrew Diehl, Reg. No. 40,992; Matthew C. Fagan, Reg. No. 37,542; Tarek N. Fahmi, Reg. No. 41,402; James Y. Go, Reg. No. 40,621; James A. Henry, Reg. No. 41,064; Willmore F. Holbrow III, Reg. No. P41,845; Sheryl Sue Holloway, Reg. No. 37,850; George W Hoover II, Reg. No. 32,992; Eric S. Hyman, Reg. No. 30,139; Dag H. Johansen, Reg. No. 36,172; William W. Kidd, Reg. No. 31,772; Erica W. Kuo, Reg. No. 42,775; Michael J. Mallie, Reg. No. 36,591; Andre L. Marais, under 37 C.F.R. § 10.9(b); Paul A. Mendonsa, Reg. No. 42,879; Darren J. Milliken, Reg. No. 42,004; Lisa A. Norris, Reg. No. P44,976; Chun M. Ng, Reg. No. 36,878; Thien T. Nguyen, Reg. No. 43,835; Thinh V. Nguyen, Reg. No. 42,034; Dennis A. Nicholls, Reg. No. 42,036; Kimberley G. Nobles, Reg. No. 38,255; Daniel E. Ovanezian, Reg. No. 41,236; Babak Redjaian, Reg. No. 42,096; William F. Ryann, Reg. No. 44,313; James H. Salter, Reg. No. 35,668; William W. Schaal, Reg. No. 39,018; James C. Scheller, Reg. No. 31,195; Jeffrey Sam Smith, Reg. No. 39,377; Maria McCormack Sobrino, Reg. No. 31,639; Stanley W. Sokoloff, Reg. No. 25,128; Judith A. Szepesi, Reg. No. 39,393; Vincent P. Tassinari, Reg. No. 42,179; Edwin H. Taylor, Reg. No. 25,129; John F. Travis, Reg. No. 43,203; George G. C. Tseng, Reg. No. 41,355; Joseph A. Twarowski, Reg. No. 42,191; Lester J. Vincent, Reg. No. 31,460; Glenn E. Von Tersch, Reg. No. 41,364; John Patrick Ward, Reg. No. 40,216; Charles T. J. Weigell, Reg. No. 43,398; Kirk D. Williams, Reg. No. 42,229; James M. Wu, Reg. No. P45,241; Steven D. Yates, Reg. No. 42,242; Ben J. Yorks, Reg. No. 33,609; and Norman Zafman, Reg. No. 26,250; my patent attorneys, and Andrew C. Chen, Reg. No. 43,544; Justin M. Dillon, Reg. No. 42,486; Paramita Ghosh, Reg. No. 42,806; and Sang Hui Kim, Reg. No. 40,450; my patent agents, of BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP, with offices located at 12400 Wilshire Boulevard, 7th Floor, Los Angeles, California 90025, telephone (310) 207-3800, and James R. Thein, Reg. No. 31,710, my patent attorney.

CONFIDENTIAL

96
94

APPENDIX B

Title 37, Code of Federal Regulations, Section 1.56 Duty to Disclose Information Material to Patentability

(a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is cancelled or withdrawn from consideration, or the application becomes abandoned. Information material to the patentability of a claim that is cancelled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §§1.97(b)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:

- (1) Prior art cited in search reports of a foreign patent office in a counterpart application, and
 - (2) The closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.
- (b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and
- (1) It establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim; or
 - (2) It refutes, or is inconsistent with, a position the applicant takes in:
 - (i) Opposing an argument of unpatentability relied on by the Office, or
 - (ii) Asserting an argument of patentability.

A prima facie case of unpatentability is established when the information compels a conclusion that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability.

(c) Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:

- (1) Each inventor named in the application;
 - (2) Each attorney or agent who prepares or prosecutes the application; and
 - (3) Every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application.
- (d) Individuals other than the attorney, agent or inventor may comply with this section by disclosing information to the attorney, agent, or inventor.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Solomon et al.

Examiner: Not Yet Assigned

Application No.: Not Yet Assigned

Art Group: Not Yet Assigned

Filed: Herewith

For: A NEEDLE ASSEMBLY HAVING
AN ELONGATE BLUNTING
DEVICE WHICH ALLOWS FOR
VENTING OF AIR

"Express Mail" mailing label number: EL231219153US
Date of Deposit: December 2, 1999

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Deborah A. McGovern
(Typed or printed name of person mailing paper or fee)

Deborah A. McGovern
(Signature of person mailing paper or fee)

December 2, 1999
(Date signed)

Assistant Commissioner for Patents
Washington, D.C. 20231

LETTER REGARDING LIMITED RECOGNITION UNDER 37 CFR § 10.9(b)

The undersigned has been granted limited recognition under 37 CFR § 10.9(b) to prosecute patent applications in which the applicants are clients of the Blakely, Sokoloff, Taylor & Zafman LLP law firm, and wherein a registered practitioner who is a member of the Blakely, Sokoloff, Taylor & Zafman LLP law firm is the attorney or agent of record. In this regard, please see the attached copy of the original document in which this limited recognition is granted. In particular, please note that:

- (a) The undersigned is an employee of the Blakely, Sokoloff, Taylor & Zafman LLP law firm;
- (b) The above applicant is a client of the Blakely, Sokoloff, Taylor & Zafman LLP law firm;
- (c) A registered practitioner who is a member of the Blakely, Sokoloff, Taylor & Zafman LLP law firm is an attorney or agent of record in the above application;
- (d) The undersigned continues to lawfully reside in the United States on a H-1B visa; and

- 98 17
96
- (e) The undersigned has been appointed as an associate attorney in the above application.

Accordingly, the undersigned meets all requirements for limited recognition under § 10.9(b), and is thus permitted to prosecute the above patent application.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN, LLP

Date: 12/2, 1999

12400 Wilshire Boulevard
Seventh Floor
Los Angeles, CA 90025-1026
(408) 720-8598



Stephen M. De Klerk
Under 37 CFR § 10.9(b)

09453983-120299

97

LIMITED RECOGNITION UNDER 37 CFR § 10.9(b)

Model	Year	Make	Model	Year	Make
1964	1964	1964	1964	1964	1964
1965	1965	1965	1965	1965	1965
1966	1966	1966	1966	1966	1966
1967	1967	1967	1967	1967	1967
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1970	1970	1970	1970	1970	1970
1971	1971	1971	1971	1971	1971
1972	1972	1972	1972	1972	1972
1973	1973	1973	1973	1973	1973
1974	1974	1974	1974	1974	1974
1975	1975	1975	1975	1975	1975
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1977	1977	1977	1977	1977	1977
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1990	1990	1990	1990	1990	1990
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2001	2001	2001	2001	2001	2001
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2003	2003	2003	2003	2003	2003
2004	2004	2004	2004	2004	2004
2005	2005	2005	2005	2005	2005
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2007	2007	2007	2007	2007	2007
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2009	2009	2009	2009	2009	2009
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2014	2014	2014	2014	2014	2014
2015	2015	2015	2015	2015	2015
2016	2016	2016	2016	2016	2016
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2018	2018	2018	2018	2018	2018
2019	2019	2019	2019	2019	2019
2020	2020	2020	2020	2020	2020
2021	2021	2021	2021	2021	2021
2022	2022	2022	2022	2022	2022
2023	2023	2023	2023	2023	2023
2024					

By L. Ford

Karen L. Bovard, Director
Office of Enrollment and Discipline

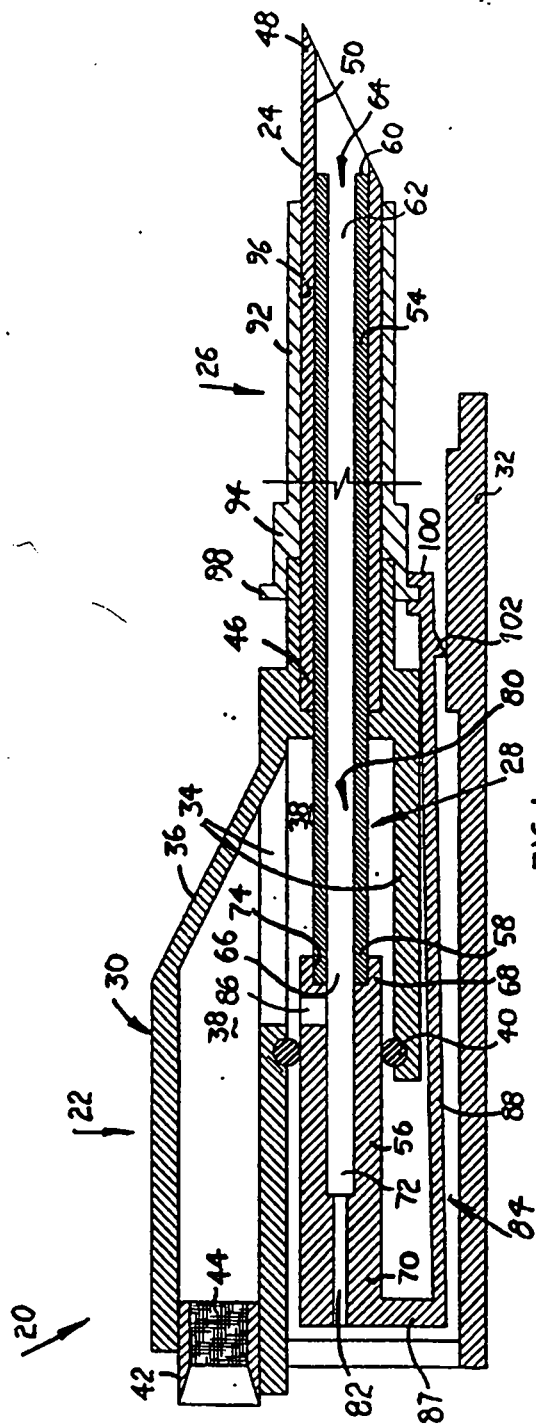


FIG 1

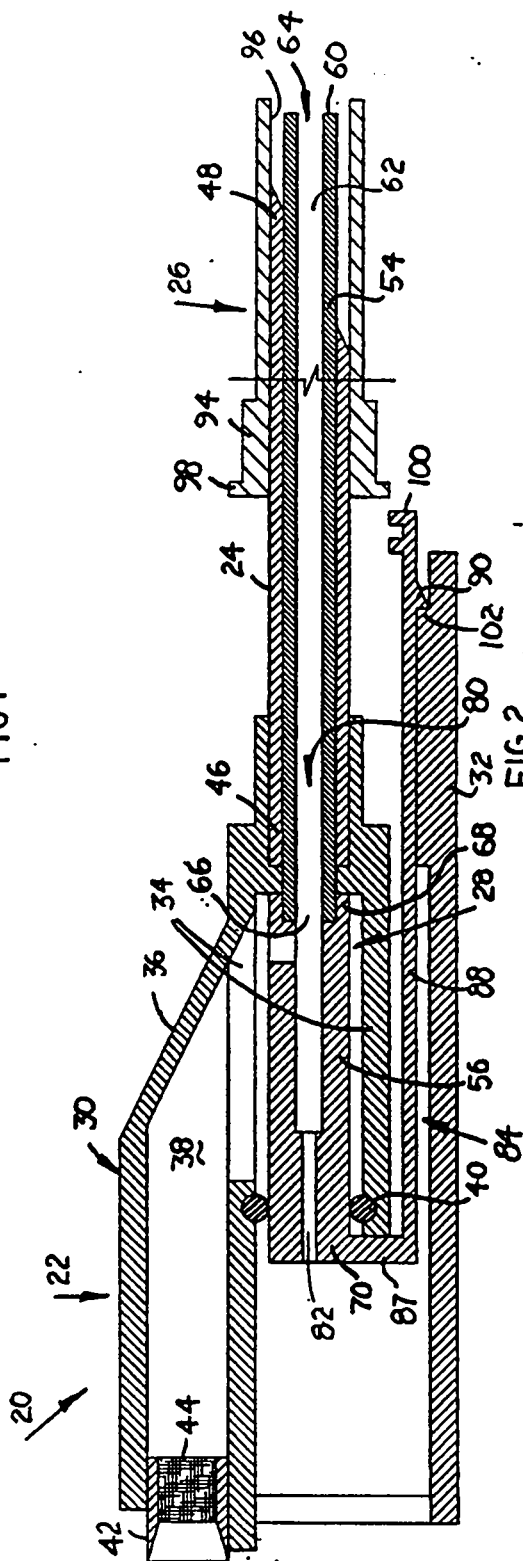
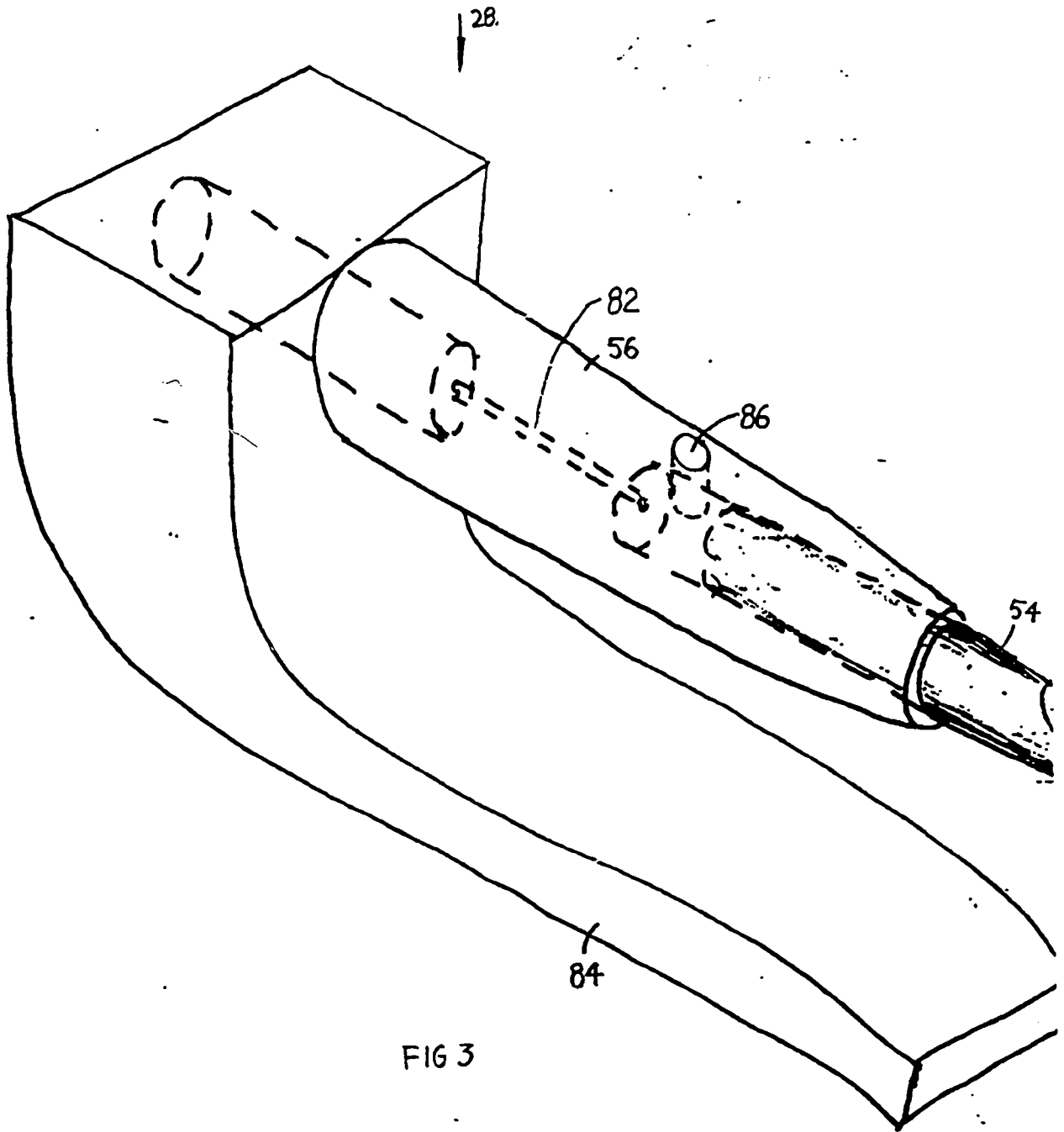
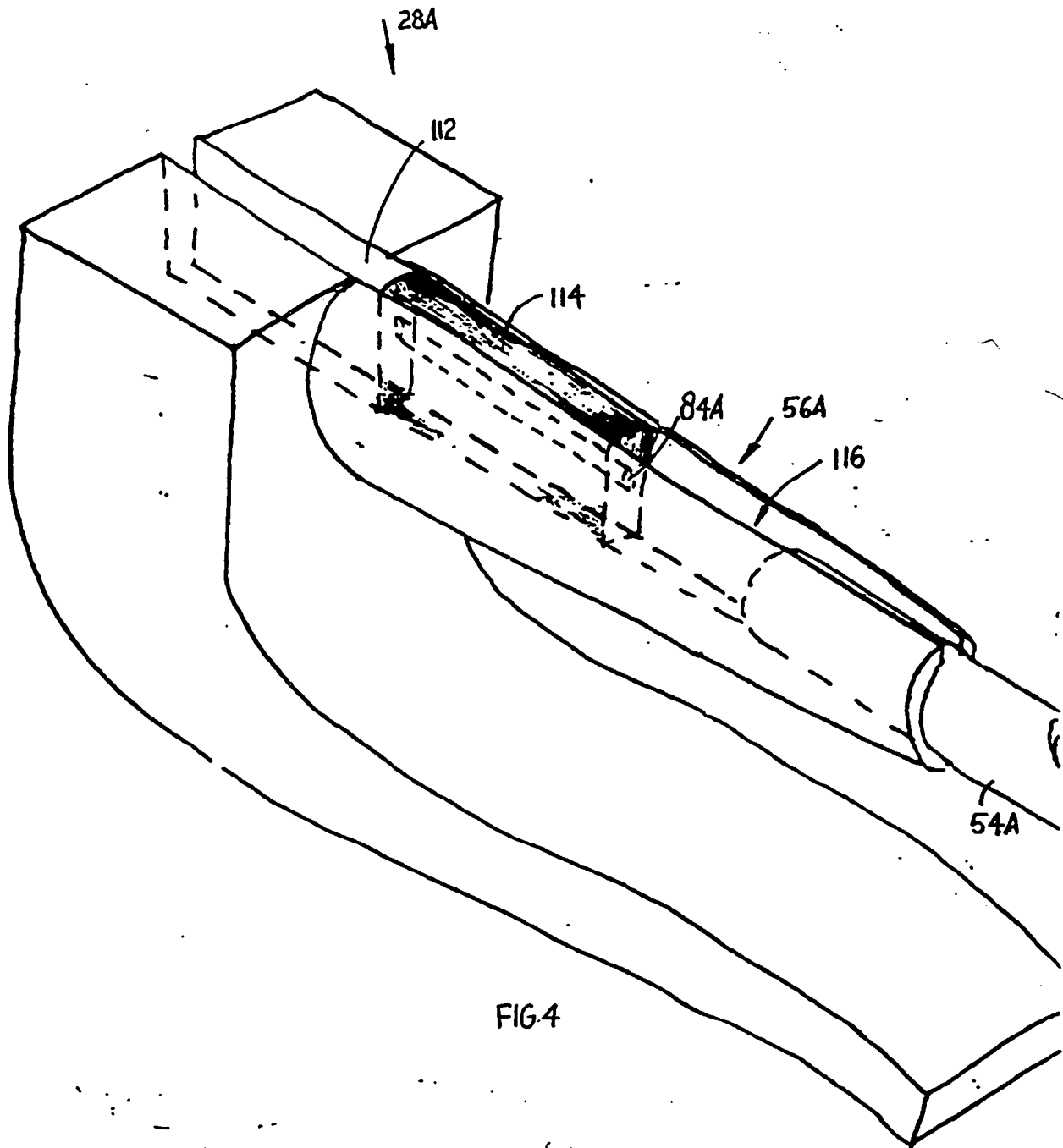


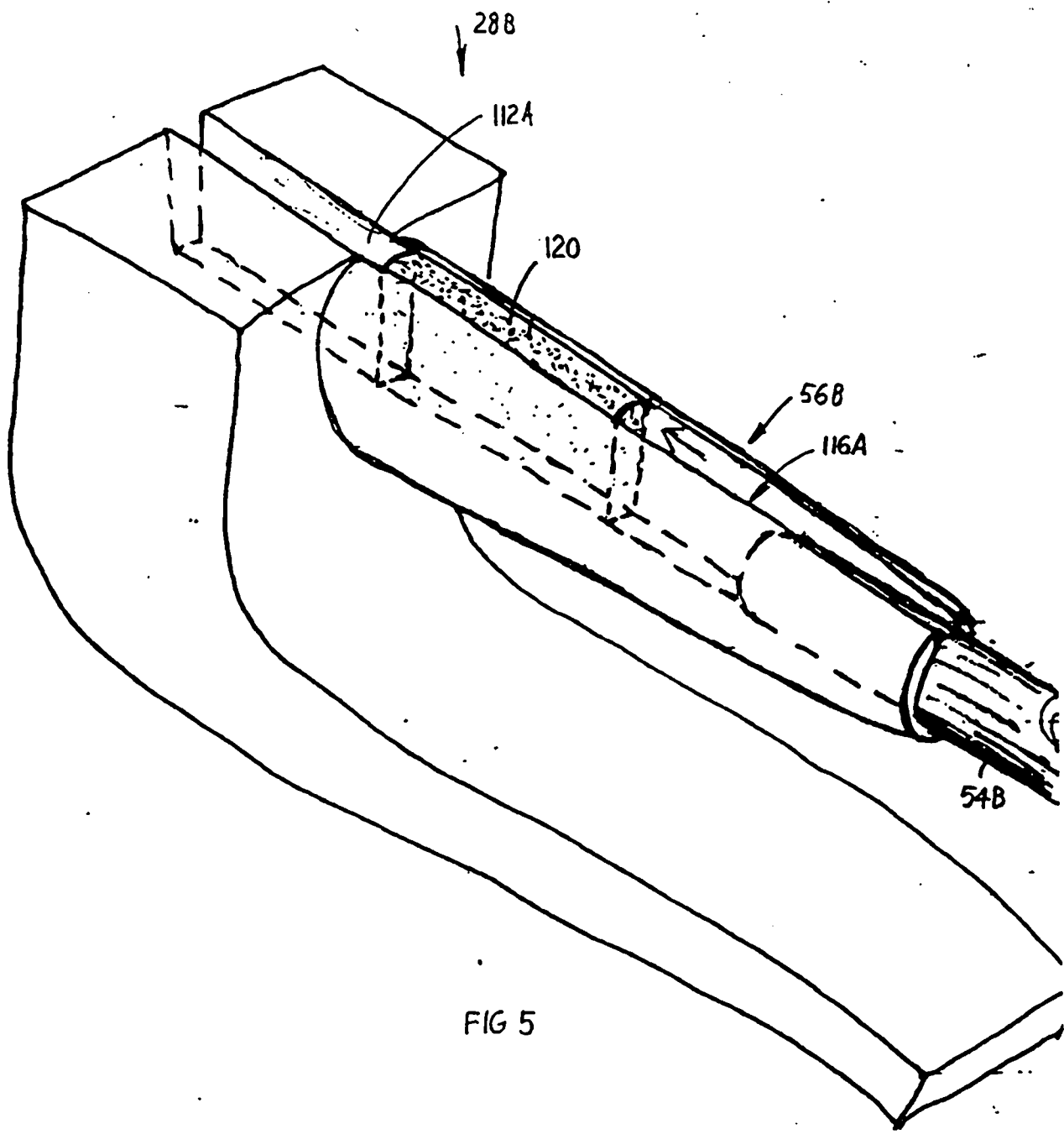
FIG 2



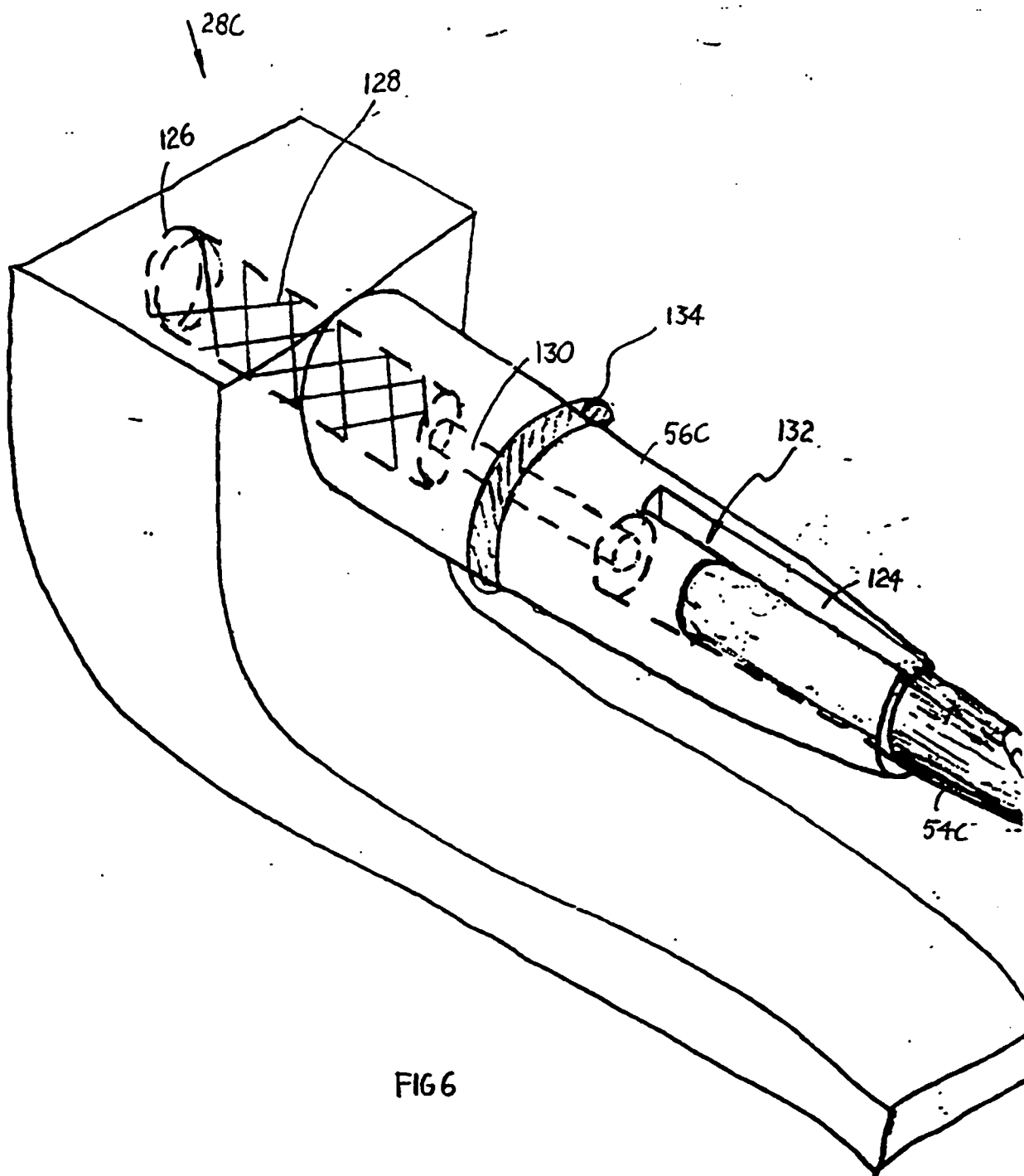
660027-136654100



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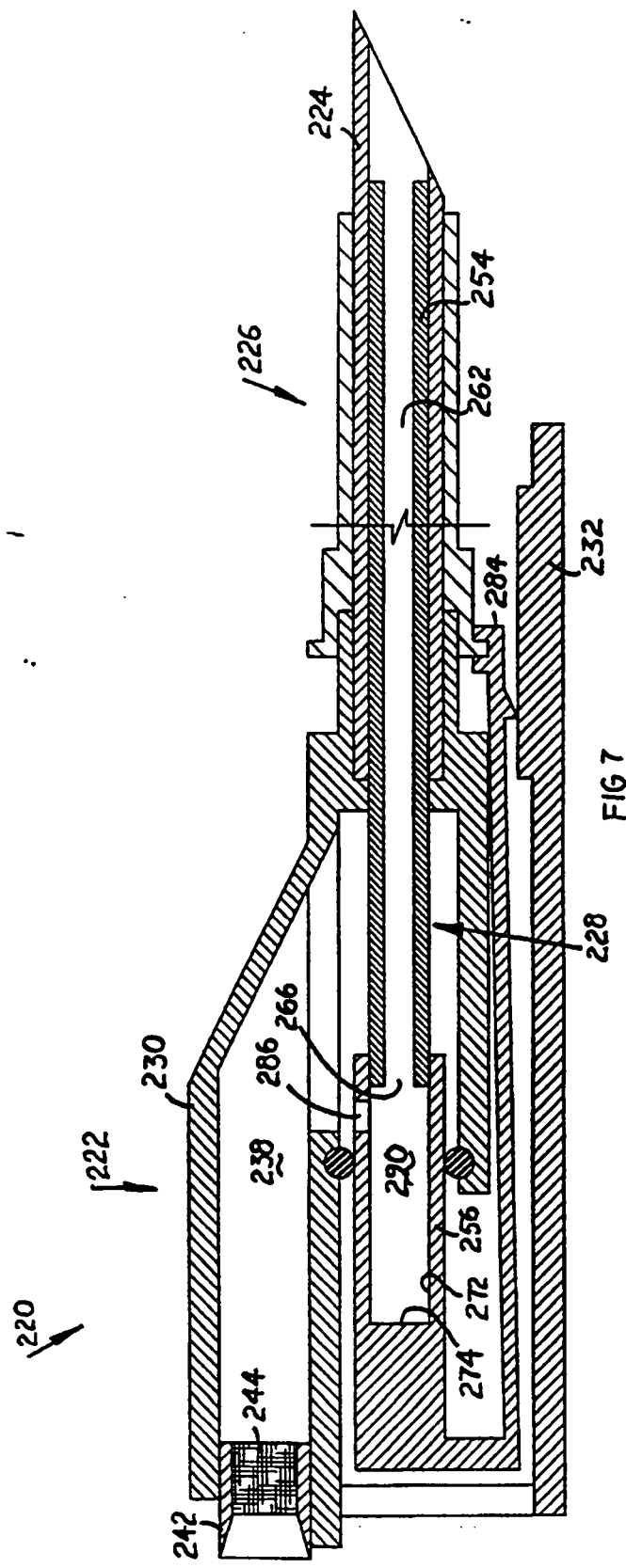


FIG 7

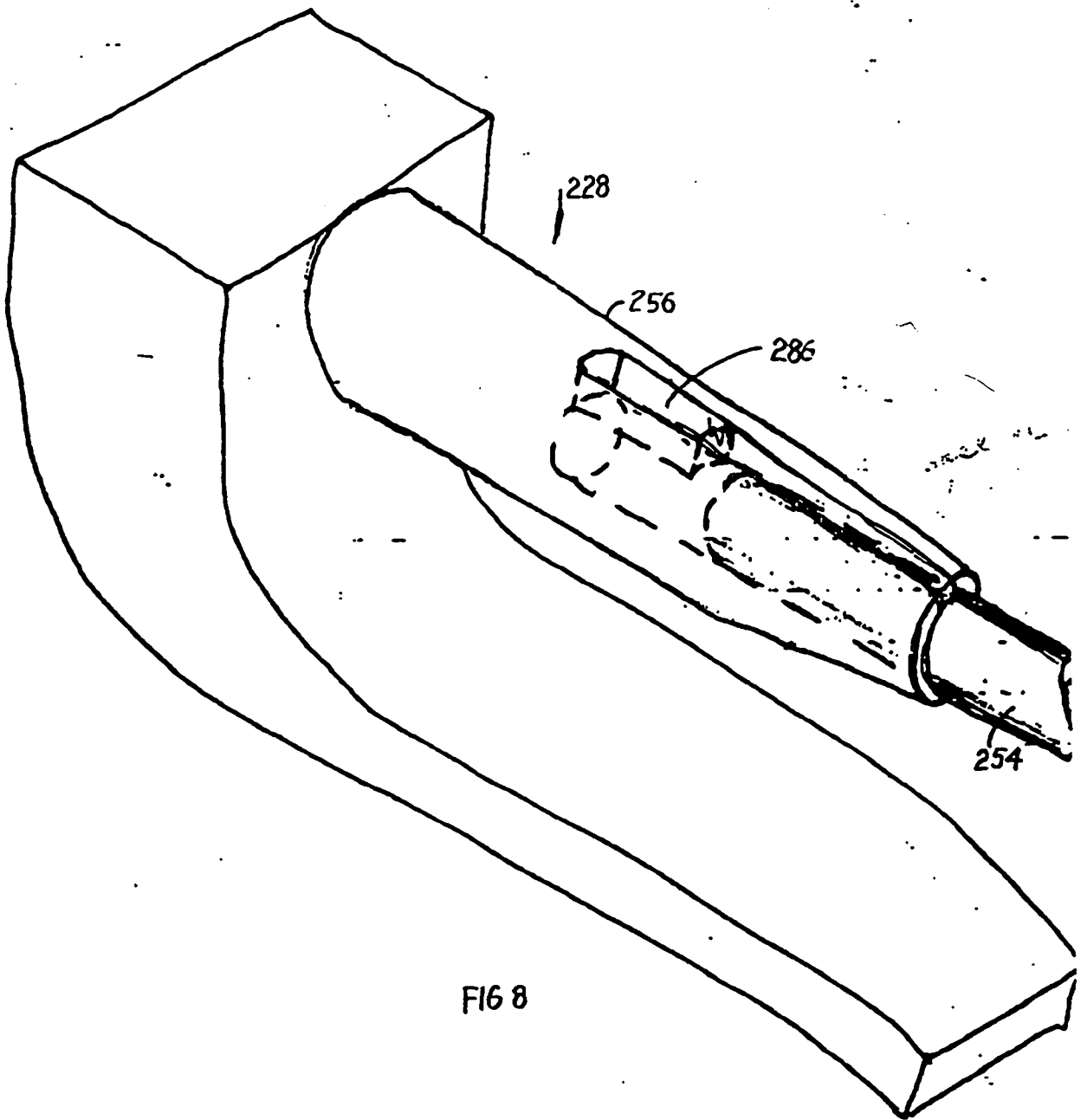


FIG 8

00452082-120200

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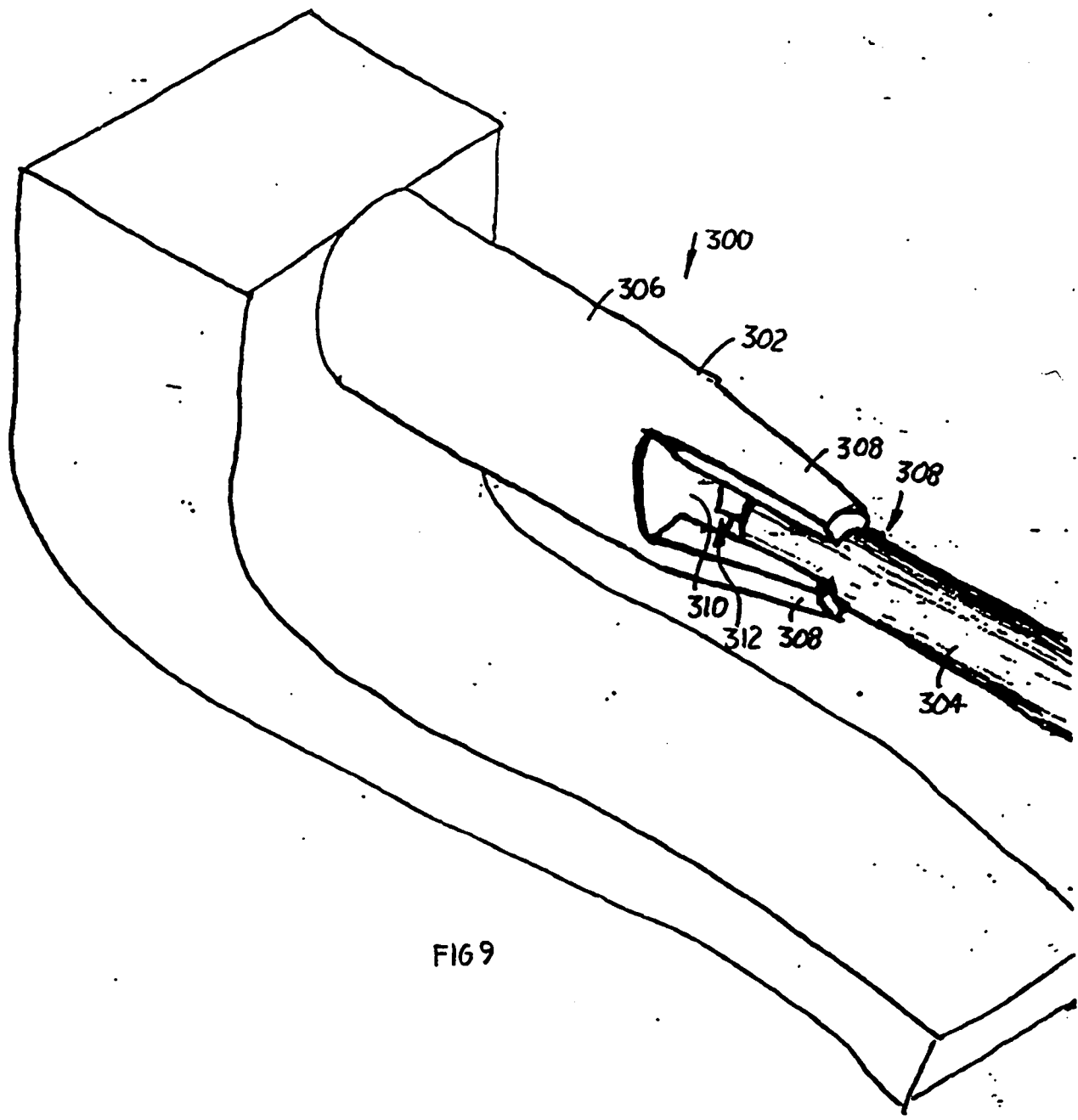
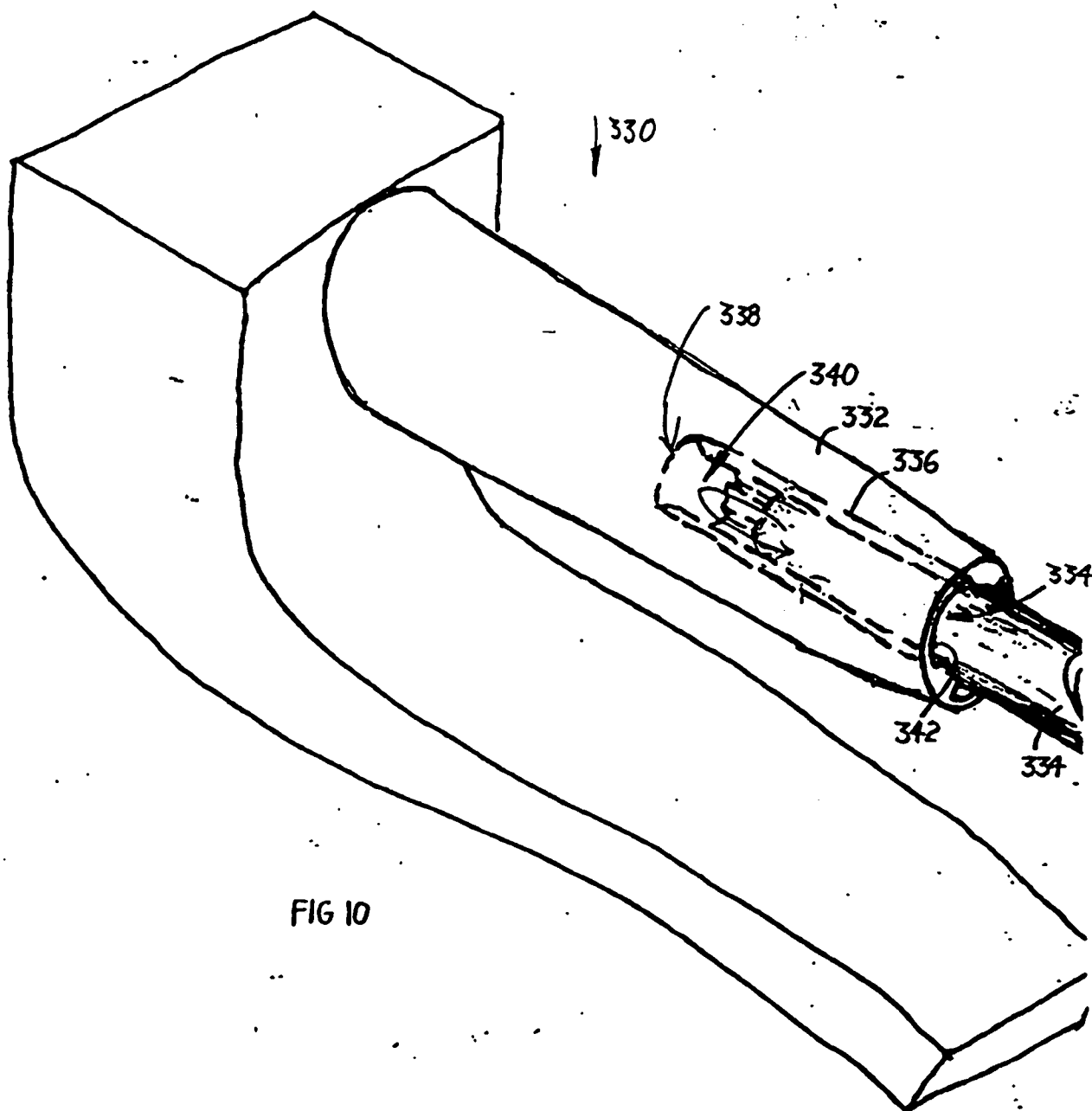


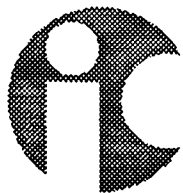
FIG 9

6622021-28025h00

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(3)

106





2do. EXAMEN DE FORMA PATENTE DE INVENCION

107

Folio 110-

Radicación no 00-91710

Concepto Técnico no 284

Clasificación Internacional de Patentes: A61M 25/00

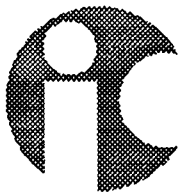
Practicado el examen de acuerdo a lo establecido en el Art. 38 de la Decisión 486 se determinó que esta solicitud de **Patente de Invención**:

- SI [☒] NO [] Contiene un resumen de la invención (Art.26-e).
- SI [☒] NO [] Contiene el título o nombre de la invención (Art.27-d).
- SI [☒] NO [] Contiene la descripción de la invención (Art.26-b).
- SI [☒] NO [] NO ES APLICABLE [] Contiene los dibujos necesarios para comprender la invención (Art.26-d)
- SI [☒] NO [] Contiene una o más reivindicaciones. (Art.26-c).
- SI [] NO [] NO ES APLICABLE [☒] Han sido desarrollados los productos y/o procedimientos a partir de recursos genéticos o de sus productos derivados de los que cualquiera de los Países Miembros es país de origen. (Art. 26- h).
- SI [] NO [] NO ES APLICABLE [☒] Los productos y/o procedimientos han sido obtenidos o desarrollados a partir de los conocimientos tradicionales de las comunidades indígenas, afroamericanas, o locales de los países miembros, de acuerdo a lo establecido en la Decisión 391 y sus modificaciones y reglamentaciones vigentes.(Art.26-i).
- SI [] NO [☒] La invención se refiere a un producto relativo a un material biológico. (Art.26-J).
- SI [☒] NO [] NO ES APLICABLE [] La prioridad coincide con la materia reivindicada.
- SI [☒] NO [] **CUMPLE LOS REQUISITOS TÉCNICOS**

OBSERVACIONES Y OTROS: SI [] NO [] ver hoja(s) anexa(s)

EXAMINADOR TÉCNICO
202051

Bogotá D. C., enero 31 de 2003



Folio 111

2020
Bogotá DC

Doctor(a)
JIMENA ESCOBAR URIBE
Apoderado(a)

REFERENCIA:	Radicación No.	00-91710
	Trámite	002
	Evento	001
	Actuación	416
	Oficio No.	279
	Folios	001

Teniendo en cuenta que la solicitud de privilegio de patente que se tramita bajo el expediente indicado en la referencia, reúne los requisitos de forma establecidos en los artículos 26 y 27 de la Decisión 486 de la Comisión de la Comunidad Andina, y en las demás disposiciones vigentes sobre la materia, se envía el extracto de la solicitud a la Oficina de Comunicaciones para efecto de su publicación en la Gaceta de Propiedad Industrial, conforme lo establece el artículo 40 de la misma Decisión.

Cúmplase

Dado en Bogotá DC,

11 FEB. 2003


ALIX CARMENZA CÉSPEDES DE VERGEL
Jefe de la División de Nuevas Creaciones

202051