TECHNOLOGY PROFILE REPORT

NEEDLESTICK INJURY PREVENTION

Subclasses 128/919, 604/110, 604/192, 604/263

1/1963 - 12/1995

May 1996
U.S. PATENT AND TRADEMARK OFFICE
OFFICE OF ELECTRONIC INFORMATION PRODUCTS -- TAF Program
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A TECHNOLOGY ASSESSMENT AND FORECAST REPORT

SAMPLE CUSTOM REPORT

NEEDLESTICK INJURY PREVENTION

The patents in this Technology Profile Report comprise utility patents having ORIGINAL or CROSS-REFERENCE classification in U.S. Patent Classification System subclasses 128/919, 604/110, 604/192, and 604/263, which relate to the prevention of needlestick injuries.

This report is generated by identifying key Patent and Trademark Office classifications, i.e., those entirely or substantially pertinent to the technology of interest. The patents in these classifications are then included in the profile. This procedure results, in most cases, in the inclusion of the majority of patents relevant to the technology and few, if any, patents which are not relevant. However, this profile should not be considered to be inclusive of all relevant patents, nor exclusive of all irrelevant patents.

For further information regarding the patents contained in this profile, the U.S. PATENT CLASSIFICATION schedule and definitions should be consulted.

SAMPLE CUSTOM REPORT

Technology Profile Report
Explanation of Data

This Technology Profile Report profiles the patent activity of a selected technology area. Reports may cover the period **1963 - December 1995** or may be limited to fewer years depending on the report specifications and on which of Report Parts A1, A2, B1, B2, C1, C2, or D are selected.

The report is generated by identifying appropriate Patent and Trademark Office (PTO) classifications, i.e., those entirely or substantially pertinent to the technology of interest. The patents in these classifications are then included in the profile. This procedure results, in most cases, in the inclusion of the majority of patents relevant to the technology and few, if any, patents which are not relevant. However, any patent listing provided should not be considered to be inclusive of all relevant patents, nor exclusive of all irrelevant patents.

Data Distribution By Year of Grant and By Year of Application

Parts A1 and B1
Parts A1 and B1 distribute patent GRANT data by year of patent grant ("Patents Granted").

"Patents Granted", as shown in the "Pre YY" column, correspond to selected patents in the data base which were granted prior to 19YY (e.g., "1982") but no earlier than 1963, the first year for which there is patent data in the TAF data base.*

Parts A2 and B2 (if included)
Parts A2 and B2 of this report, if included, distribute patent GRANT data by the year in which the patents were applied for ("Patented Applications").

DATA FOR THOSE APPLICATIONS WHICH WERE FILED BUT NEVER ISSUED (ROUGHLY 40% OF TOTAL FILINGS) ARE NOT INCLUDED IN THIS REPORT.
Since the average time period between filing for a patent and the issuing of the patent (i.e., a patent's "pendency") is now about 18 months, the “Patents By Year of Application” data for **1991 - December 1995** are incomplete.** This is because a significant number of the applications filed from **1991 - December 1995** which will ultimately become patents were still pending in **December 1995**. Since they had not yet become patents at the time this report was prepared, they were not included in this report.

Patented application data are of significant value since the date an application was filed more accurately reflects when the technology was developed. Additionally, fluctuations in data based on application date are much more likely to reflect changes in technological activity, since such fluctuations would for the most part be immune from changes in PTO processing such as occurred in 1986 when the PTO issued fewer patents than would normally have been expected due to a lack of funds to print patents. Note that a patent's "pendency" can be quite variable from one patent to another thereby affecting the date of patent grant. Such variation in pendency is determined by many factors, including PTO workload (which varies between technologies), budget and manpower levels, patent printing schedules, etc.

"Patented Applications", as shown in the "Pre YY" column (e.g., "1982"), correspond to patent grants in the report which were filed prior to "19YY".

Parts of the Report

Parts A1 and A2 present tables which show, by number and percent, the patent activity in the technology area. Part A1 presents data by year of patent grant ("Patents Granted"). Part A2 redistributes grant data by year of patent application ("Patented Applications"). The location of patent origin is determined by the residence of the first-named inventor at the time of grant.

Information on **patent ownership** reflects ownership at the time of patent grant and does not include subsequent changes in ownership. If more than one assignee was declared at the time of grant, the patent is attributed to the first-named assignee. The U.S. and Foreign Corporations ownership categories count predominantly corporate patents; however, patents assigned to other organizations such as small businesses, nonprofit organizations, universities, etc. are also included in this category. While U.S. Government patent ownership includes only patents granted to the Federal Government, no such distinction is made for Foreign Government patents.

Parts B1 and B2 are ranked listings of national and international organizations (i.e., corporations, universities, government agencies) which have received U.S. patents since 1969.* Part B1 distributes counts of patent grants for each organization by year of grant. Part B2, if included, redistributes those same patent grants by year in which the patented application was filed. Information on patent ownership reflects ownership at the time of patent grant (see explanation for Parts A1 and A2, above).

Part C1 of the report, if included, lists specific patent numbers and titles for each assignee in the selected technology area. **Part C2** lists patent numbers and titles for patents which were either unassigned or assigned to an individual at the time of grant.

Part D of the report, if included, gives inventor names, full addresses, patent numbers and titles for unassigned patents granted since 1975.* It also gives inventor names, residence by city and state, patent numbers and titles for patents assigned to individuals. At the end of Part D is a list of patents with neither assignment nor inventor information in the data base.

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* The term "patent", as used above, refers to "utility" patents. For other patent documents (i.e., design, plant and reissue patents, statutory invention registrations, defensive publications), this report includes data for patents granted no earlier than January of 1977.

** As of 12/31/95, utility patent application data were approximately 95% complete for patent applications filed in 1991, 91% complete for applications filed in 1992, 80% complete for applications filed in 1993, and 22% complete for applications filed in 1994. They were essentially complete for applications filed prior to 1991.

Part A1

(Patent Grants as Distributed By Date of Patent Grant)

SAMPLE CUSTOM REPORT

---- Patents Granted By Date Of Patent Grant (Granted: Jan 01, 1963 - Dec 31, 1995) ----

	NUMBER OF PATENTS															
	Pre 1982	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	Total
Total	132	9	11	14	10	17	22	54	90	140	140	156	160	165	118	1238
U.S. Origin	119	7	6	10	7	15	18	44	74	117	110	117	120	128	92	984
Foreign Origin	13	2	5	4	3	2	4	10	16	23	30	39	40	37	26	254
CANADA	1							2	5	2	2	2	3	7	6	30
FRANCE	1		1	1	1	1				3	3	5	6	2	4	28
ITALY									2	1	4	7	4	6	1	25
UNITED KINGDOM	3		1	1	1			1	2	2	3	5	2	2	1	24
TAIWAN							1	2		1	1	2	5	7	4	23
JAPAN	1		1	1	1		2	1	1	1	3	3	4	1	2	22
AUSTRALIA									2	4	2	2	4	2	2	18
GERMANY	1	1		1				2	2	1	3	3	2	1		17
NETHERLANDS	2								1			1	2	1	2	9
SPAIN										2	3	1	1	1		8
ARGENTINA											2	1	2	2	1	8
SWITZERLAND									1	3	1		1	1		7
SWEDEN		1								1	1			1	1	5
S. AFRICA			1									1	1	1	1	5
MEXICO	3		1													4
AUSTRIA	1							1					1			3
NORWAY								1		1		1				3
DENMARK						1				1	1					3
U.S.S.R.											1	2				3
ISRAEL												1			1	2
CHINA P.REP.												1				1
YUGOSLAVIA							1									1
SAUDI ARABIA												1				1
HONG KONG													1			1
BELGIUM													1			1
CYPRUS														1		1
IRELAND														1		1
Ownership:																
U.S. Corporations	75	4	6	5	5	8	5	21	28	40	39	57	43	52	35	423
U.S. Government																0
U.S. Individuals	46	3	2	5	2	7	13	24	46	77	72	60	79	80	55	571
Foreign Corporations	6	2	3	3	2	2	2	2	9	9	12	16	15	12	17	112
Foreign Government										1						1
Foreign Individuals	5			1	1		2	7	7	13	17	23	23	21	11	131

Part A2

(Patent Grants as Distributed By Date of Patent Application)

SAMPLE CUSTOM REPORT

---- Patents Granted By Date Of Patent Application (Granted: Jan 01, 1963 - Dec 31, 1995) ----

	NUMBER OF PATENTED APPLICATIONS														
	Pre 1982	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	Total
Total	152	13	11	11	15	30	83	146	133	141	157	139	149	57	1	1238
U.S. Origin	132	9	9	9	12	26	66	122	104	112	116	104	120	42	1	984
Foreign Origin	20	4	2	2	3	4	17	24	29	29	41	35	29	15		254
CANADA	1						5	4	2	2	4	5	3	4		30
FRANCE	2	2		1					4	7	4	5	2	1		28
ITALY								2	5	1	7	7	2	1		25
UNITED KINGDOM	4		2			1	3	1	4	2	2	4	1			24
TAIWAN					1		2	1	1		2	2	9	5		23
JAPAN	1	2			2	1	1	2	2	1	6	1	2	1		22
AUSTRALIA							1	4	3	4	3	2	1			18
GERMANY	3						3	1	3	2	4		1			17
NETHERLANDS	2							1		1		2	1	2		9
SPAIN								3	1	1	1	1	1			8
ARGENTINA									1	3	1		3			8
SWITZERLAND							1	2	2		1		1			7
SWEDEN	1								1	1		1	1			5
S. AFRICA	1										1	2	1			5
MEXICO	4															4
NORWAY							1	1		1						3
DENMARK				1				1		1						3
AUSTRIA	1					1					1					3
U.S.S.R.										2	1					3
ISRAEL								1						1		2
YUGOSLAVIA						1										1
CHINA P.REP.											1					1
SAUDI ARABIA											1					1
IRELAND											1					1
HONG KONG												1				1
BELGIUM												1				1
CYPRUS												1				1
Ownership:																
U.S. Corporations	84	5	7	4	6	13	29	49	36	40	48	41	49	12		423
U.S. Government																0
U.S. Individuals	52	4	2	5	6	13	38	73	69	72	68	68	71	30		571
Foreign Corporations	11	2	2	2	2	2	4	13	10	11	19	14	11	8	1	112
Foreign Government							1									1
Foreign Individuals	5	2		1	2		11	11	18	18	22	16	18	7		131

SAMPLE CUSTOM REPORT

Part B1/B2

(Ranked Listing of Organizations with Patent Grants
As Distributed By Year of Patent Grant and By Year of Patent Application)

SAMPLE CUSTOM REPORT

---- Organizational Patenting (Granted: Jan 01, 1969 - Dec 31, 1995) ---- Ranked List of Organizations with 3 or More Patents ----

	Pre 1982	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	TOTAL
BECTON, DICKINSON AND COMPANY																
Patents By Year of Grant:	6	0	1	1	0	0	1	0	1	3	1	2	6	13	7	42
Patents By Year of Application:	7	1	0	0	0	1	0	3	1	2	3	11	8	5	0	42
HABLEY MEDICAL TECHNOLOGY CORPORATION																
Patents By Year of Grant:	0	0	0	0	0	0	1	3	4	11	2	6	3	2	3	35
Patents By Year of Application:	0	0	0	0	0	0	5	12	6	4	3	0	5	0	0	35
SHERWOOD MEDICAL COMPANY																
Patents By Year of Grant:	0	0	0	0	0	0	0	0	0	1	4	11	3	2	1	22
Patents By Year of Application:	0	0	0	0	0	0	0	2	2	4	9	5	0	0	0	22
BAXTER INTERNATIONAL INC.																
Patents By Year of Grant:	7	0	1	0	2	1	0	0	1	0	0	1	1	1	0	15
Patents By Year of Application:	8	1	2	0	0	0	1	1	0	1	0	0	1	0	0	15
AMERICAN HOSPITAL SUPPLY CORPORATION																
Patents By Year of Grant:	6	0	0	0	0	0	1	0	0	0	0	0	0	0	0	7
Patents By Year of Application:	6	0	0	0	1	0	0	0	0	0	0	0	0	0	0	7
ABBOTT LABORATORIES																
Patents By Year of Grant:	1	0	0	0	0	0	0	0	0	0	0	3	0	1	1	6
Patents By Year of Application:	1	0	0	0	0	0	0	0	0	3	0	0	2	0	0	6
INJECTIMED. INC.																
Patents By Year of Grant:	0	0	0	0	0	0	0	0	0	0	0	0	4	2	0	6
Patents By Year of Application:	0	0	0	0	0	0	0	0	0	0	0	4	2	0	0	6
LUTHER MEDICAL PRODUCTS, INC.																
Patents By Year of Grant:	0	0	0	0	0	0	0	2	1	1	0	0	1	0	1	6
Patents By Year of Application:	0	0	0	0	0	0	3	0	1	0	1	0	1	0	0	6
SMITHS INDUSTRIES MEDICAL SYSTEMS, INC.																
Patents By Year of Grant:	0	0	0	0	0	0	0	0	0	0	0	2	2	1	1	6
Patents By Year of Application:	0	0	0	0	0	0	0	0	0	1	3	1	1	0	0	6
BURRON MEDICAL PRODUCTS, INC.																
Patents By Year of Grant:	3	0	0	0	0	2	0	0	0	0	0	0	0	0	0	5
Patents By Year of Application:	3	0	0	0	2	0	0	0	0	0	0	0	0	0	0	5
ICU MEDICAL, INC.																
Patents By Year of Grant:	0	0	0	0	0	0	0	2	2	1	0	0	0	0	0	5
Patents By Year of Application:	0	0	0	0	0	1	3	1	0	0	0	0	0	0	0	5

SAMPLE CUSTOM REPORT

Part C1

(Patent Number and Title Listing of Patents Assigned to Organizations)

SAMPLE CUSTOM REPORT

ABAR SERVICE S.R.L.
5125899 - Disposable syringe for once-only use

ABBIS CORPORATION
5383857 - Safety syringe

ABBOTT LABORATORIES
3890972 - SYRINGE INJECTOR WITH POP-TOP CAP
5086780 - BLOOD COLLECTION DEVICE
5102394 - CATHETER ASSEMBLY WITH PROTECTIVE SHIELD
5151090 - Syringe and needle guard assembly
5322515 - Luer adapter assembly for emergency syringe
5382241 - Adapter assembly for cannula hub syringe

ADVANCED DISPOSAL SYSTEMS INTERNATIONAL LIMITED
5282428 - Medical needle incinerator and sealer

ADVANCED PROTECTIVE INJECTION SYSTEMS MEDICAL B.V.
5116319 - Safety device for an injection syringe needle
5364359 - Syringe with retractable needle
5380286 - Safety device for an injection syringe needle
5466226 - Injection assembly with a suction needle and a retractable injection needle

ADVANCED SAFETY TECHNOLOGY
5304138 - Single use, destructible medical syringe

ADVENTEC INC.
5338304 - Needle protected syringe

AGVEN MEDICAL CORPORATION LIMITED
5047017 - SYRINGE

AID-PACK, INC.
4619645 - DISPOSABLE ENEMA UNIT
4752288 - DISPOSABLE ENEMA UNIT

AKZO N.V.
5472434 - Spike retainer system

ALCO MACHINE + TOOL, INC.
5137521 - Telescoping safety guard for hypodermic needles and the like

ALLFLEX EUROPE S.A.
4976925 - APPLIANCE DESIGNED FOR SINGLE USE FOR TAKING SAMPLES OF LIQUIDS

ALTERON, INC.
4978340 - SYRINGE WITH RETRACTABLE NEEDLE

ALTEX SCIENTIFIC, INC.
4205767 - CANNULA INJECTION DEVICE

SAMPLE CUSTOM REPORT

Part C2

(Number and Title Listing of Unassigned Patents and Patents Assigned to Individuals)

SAMPLE CUSTOM REPORT

---- Organizational Patenting (Jan 01, 1963 - Dec 31, 1995) --- Alphabetical Listing ----

Individually Owned Patents - Numerical Listing

3459342 - AEROSOL CONTAINER DISPENSING ATTACHMENT
3461868 - MEDICAMENT INJECTION DEVICE
3478937 - DISPOSABLE SINGLE UNIT-DOSE SYRINGE WITH LOCKING PLUNGER
3513830 - INSTRUMENT FOR OBTAINING BODY
3559645 - DISPOSABLE SYRINGE
3592184 - HEART ASSIST METHOD AND CATHETER
3623210 - METHOD OF AND APPARATUS FOR APPLYING A SHEATH TO A HYPODERMIC NEEDLE SECURED IN A VIAL
3640278 - HYPODERMIC SYRINGE DEVICE WHICH MAINTAINS STERILE CONDITION OF NEEDLE
3667657 - DISPOSABLE CONTAINER
3768473 - DOME SYRINGES DIAPHRAGM WITH BALLONING
3796359 - DISPOSABLE HYPODERMIC NEEDLE DESTROYER
3820652 - PACKAGED SYRINGE CONSTRUCTION
3874383 - HYPODERMIC NEEDLE WITH DISTORTABLE HUB LINER
3882866 - ENEMA SYRINGE
3890971 - SAFETY SYRINGE
3900026 - DEVICE FOR HOLDING AND PROTECTING INTRAVENOUS INJECTION NEEDLES
3901226 - PROTECTIVE GUARD FOR A HYPODERMIC NEEDLE
3927676 - ENDOTRACHEAL TUBE SECURING DEVICE AND METHOD
3951146 - DISPOSABLE SELF-DESTRUCTIBLE SYRINGES WHICH RENDER THEMSELVES UNREUSABLE
3967621 - NEEDLE HOLDER FOR MEDICAL SYRINGES, VIALS, OR THE LIKE
3989045 - HYPODERMIC SYRINGE
3998224 - DISPOSABLE SELF-DESTRUCTIBLE SYRINGES WHICH RENDER THEMSELVES UNREUSABLE
4009716 - NEEDLE-HUB ASSEMBLY FOR SYRINGES
4022191 - BIOPSY NEEDLE GUARD AND GUIDE
4026287 - SYRINGE WITH RETRACTABLE CANNULA
4085737 - DEVICE AND TECHNIQUE FOR MINIMIZING RISK OF CONTAMINATION BY BLOOD SAMPLE
4119128 - TAMPERPROOF STERILE PORT COVER AND METHOD OF MAKING SAME
4124025 - GAS LOCK FOR HYPODERMIC
4170993 - SLIDING I.V. NEEDLE CARRIER ASSEMBLY
4178930 - COMBINED CAP AND NEEDLE STRUCTURE
4233975 - ANTI-DRUG ABUSE SINGLE-USE SYRINGE
4248228 - DISPOSABLE ENEMA SYRINGE FOR ONE HAND USE
4252118 - NON-REUSABLE DRUG PREFILLED SYRINGE ASSEMBLY AND METHOD OF USE
4266543 - HYPODERMIC NEEDLE PROTECTION MEANS
4266544 - HYPODERMIC SYRINGE
4266545 - PORTABLE SUCTION DEVICE FOR COLLECTING FLUIDS FROM A CLOSED WOUND
4270536 - DISPOSABLE SYRINGE
4273123 - SYRINGE AND NEEDLE COVER
4303069 - HYPODERMIC SYRINGE WITH NEEDLE GUIDE
4334536 - HYPODERMIC SYRINGE NEEDLE ASSEMBLY
4356822 - SYRINGE ASSEMBLY
4365626 - UNIVERSAL SYRINGE
4380292 - PARENTERAL NEEDLE RECEPTACLE
4402682 - TAMPER-PROOF CANNULA SUPPORT ASSEMBLY
4424918 - NON-RESEALABLE DISPENSER CAP CONSTRUCTION
4425120 - SHIELDED HYPODERMIC SYRINGE
4446967 - GERMICIDE SLEEVE FOR DENTAL AND MEDICAL INSTRUMENTS
4453936 - SLEEVE FOR PROTECTION AGAINST INTERNAL CONTAMINATIONS FOR A GYNAECOLOGICAL GUN IN PARTICULAR FOR BOVINES
4475905 - INJECTION DEVICE
4485918 - NEEDLE DISPOSAL APPARATUS

SAMPLE CUSTOM REPORT

Part D

Alphabetical Listing of Inventors of Individually Owned Patents (i.e., Unassigned Patents and Patents Assigned to Individuals) Including the Numbers and Titles of Their Patents

SAMPLE CUSTOM REPORT

---- Inventors of Individually Owned Patents (Jan 01, 1975 - Dec 31, 1995) ----

Inventor Name	Street	City	St	ZIP	Cnt
Adair Edwin L.	317 Paragon Way	Castle Pines Village	CO	80104	
5402768 - Endoscope with reusable core and disposable sheath with passageways					
Adair Edwin L.	2800 S. University Blvd.	Denver	CO	80210	
4878485 - RIGID VIDEO ENDOSCOPE WITH HEAT STERILIZABLE SHEATH					
Adam John M.	818 Colestone Rd.	Marietta, Cobb	GA	30060	
5092461 - NEEDLE COVER ASSEMBLY					
5092461 - NEEDLE COVER ASSEMBLY					
Adobbati Ricardo N.	615 Palo Verde	Brownsville	TX	78520	
5445618 - Safety syringe with non-linear needle					
5445618 - Safety syringe with non-linear needle					
Agran Robert B.	909 Quantril Way	Baltimore	MD	21205	
5059181 - NON-RECHARGEABLE DISPOSABLE SYRINGE					
5059181 - NON-RECHARGEABLE DISPOSABLE SYRINGE					
Al-Sioufi Habib	P.O. Box 654	Brookline	MA	02146	
4998925 - I. V. CONNECTOR					
Allard Edward F.	7830 Greeley Blvd.	Springfield	VA	22152	
4838863 - SAFE NEEDLE SYSTEM FOR COLLECTING FLUIDS					
Alles Anthony	1511-10 The Driveway	Ottawa, Ontario			CA
4775364 - Non re-useable disposable hypodermic syringe					
Allison Alan C.	233 Marvilla Cir.	Pacifica	CA	94044	
5205825 - Insertable element for preventing reuse of plastic syringes					
5370628 - Safety needle and syringe					
5370628 - Safety needle and syringe					
Alrazi Jamil A.	108 Mills St.	Morristown	NJ	07963	
4124025 - GAS LOCK FOR HYPODERMIC					
4124025 - GAS LOCK FOR HYPODERMIC					
Altschuler Bruce R.	4542 English Ave.	Ft. Meade	MD	20755	
5318547 - Sheathed hypodermic needle					
Alvarez Marcial	220 E. Jersey St.	Elizabeth	NJ	07206	
4950242 - HYPODERMIC NEEDLE COVER AND ASSEMBLY THEREWITH					
4950242 - HYPODERMIC NEEDLE COVER AND ASSEMBLY THEREWITH					
Alvarez Marcial	225 E. Jersey St.	Elizabeth	NJ	07206	
4170993 - SLIDING I.V. NEEDLE CARRIER ASSEMBLY					
Alzain Mohammed O.	P.O. Box 4450	Kingdom Of Saudi Ara			SA
5104386 - DENTAL SYRINGE APPARATUS					