

Different Forms of IP Protection

Dr. Ashley J. Stevens
President



“Class: today’s lesson on sharing has been cancelled. It will be replaced by a lesson called “Intellectual Property Protection”



Companies need barriers to entry

- ❑ To protect the market
- ❑ To protect pricing
 - ❑ Intellectual property is the best source of protection for new companies

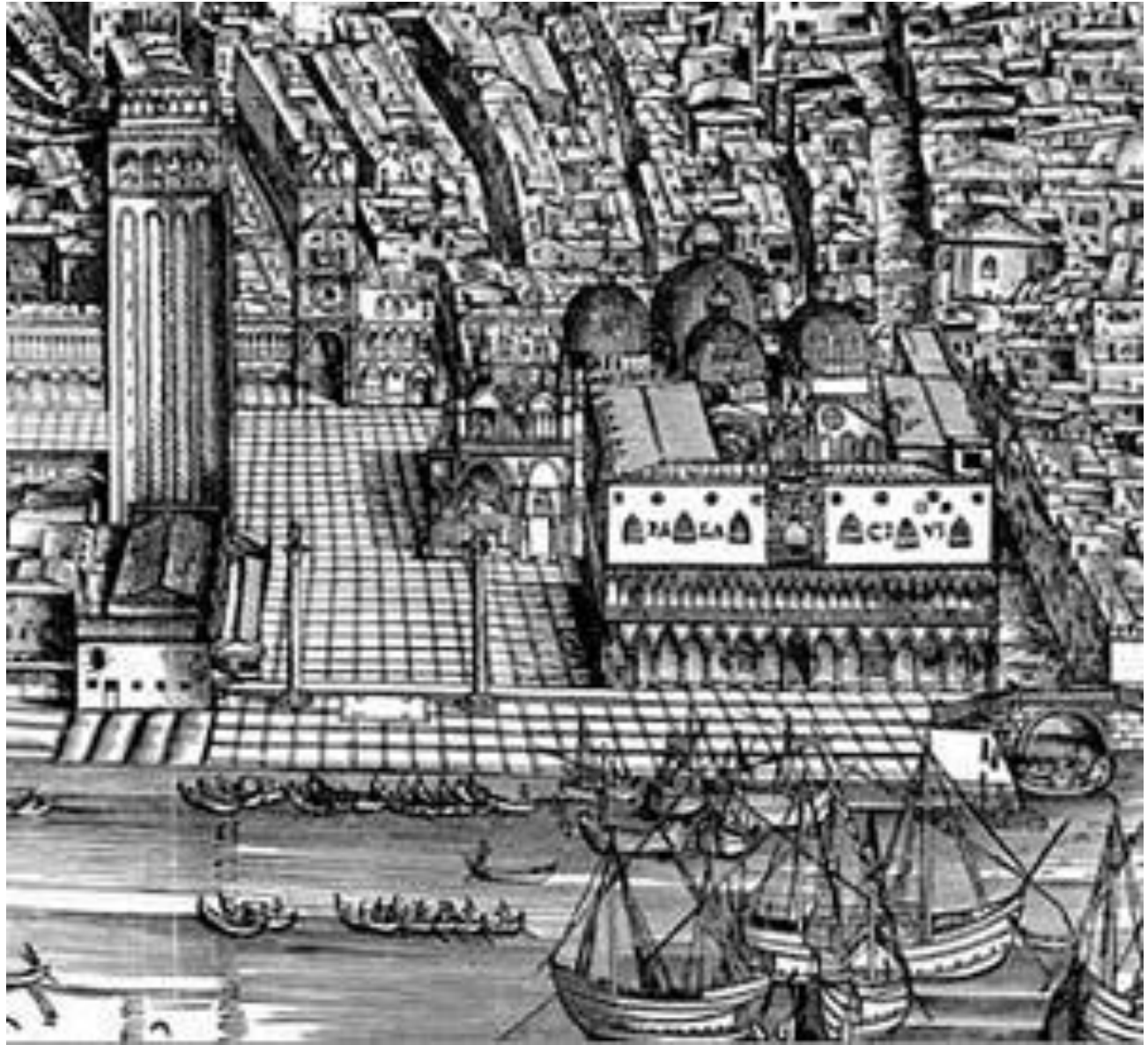
Intellectual Property

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Property Produced by the Intellect (Mind)

Like all property, it must be protected

Venice – 1474



Venice

Monday - The Day After.

-32-

[illegible]

Sono i questa città, et anche alla giornata per la grandezza et bontà sua
Contra hominu da diversi brinde, et acutissimi frugoni, apri ad exortare
et renovar vany Ingegrosi artifizii. Et se fosse provisto, ch'le opere et artifizii
trovade da loro altri vixte che le havessero, no potessero farle per loro honor
suo, Et tal hominu exortatissimo l'ingegno, produzzano, et faranno delle cose,
che facciano tanto molta utilità et beneficio al publico nro. perche L'andrea parte
Ch'è auctorità di questo oficio, ch'adunq che fari i questa città alcun nuovo
et Ingegrosi artificio, no fatto prima nel dno nro, Reduro ch'el sia a
pfation, Et che el se non usi, et exortare, sia tenuto darlo i nota al officio
di nro Provvidori di Comm. Quando prohibito a ch'adunq altro i alcuna cosa
e modo suo far alcun altro artificio di imagine et similitudine d' quello senza
consentimento et licentia del auctor, fino ad anni 2. Et tamen se alcun el fesse,
L'andrea et Invenitor patreio, habra licentia potello citar ach'adunq officio de
questa città, balanz officio el dno che l'avesse a pofare, sia astretto a pagarli
due Libbre, et l'infino finno sia de fuso. Quando p' liberta dela sua città
ad ogni suo piacere, mor et vixte nel suo Ingegrosi ch'adunq di tutti artifizii, et
Invenitioni. Cum questa p' conditione, che altri ch'è auctor no li possa exortare.

de paine — 116 non fini — 3
de vin — 10

condition, however, that no one other than the inventors shall operate them.

*~\$7,000 today

6

Venice

Any person in this city who makes any new and ingenious contrivance, not made heretofore in our dominion, shall, as soon as it is perfected so that it can be used and exercised, give notice of the same to our office of Provveditori de Comun, it being forbidden up to 10 years for any other person in any territory and place of ours to make a contrivance in the form and resemblance thereof, without the consent and license of the author.

And should anybody make it, the aforesaid author and inventor will have the liberty to cite him before any office of this city, which office will force the aforesaid infringer to pay him the sum of 100 ducats* and immediately destroy the contrivance.

But our government will be free, at its complete discretion, to take and use for its needs any of the said contrivances and instruments, with this condition, however, that no one other than the inventors shall operate them.

*~\$7,000 today



1623 Monopolies Act



- ❑ The patent system got started with Royal Patents in the UK
- ❑ King gave a monopoly on a segment of the economy to a favored courtier
 - ❑ Paid the King a commission
 - ❑ “Royalties”!
- ❑ Distorted trade
- ❑ Upset the Guilds
 - ❑ Very powerful associations of skilled craftsmen
- ❑ 1623 Monopolies Act:
 - ❑ Wiped out prior patents
 - ❑ Limited new patents to new inventions
 - ❑ No established businesses to be disrupted

Intellectual Property

- ❑ Enshrined in the U.S. Constitution
 - “Congress shall have the Power... to promote the Progress of Science and useful Arts by securing for limited Times to *Authors and Inventors* the exclusive Right to their respective *Writings and Discoveries.*”
- ❑ Grants the holder the exclusive right to practice their invention for a defined period in return for making their knowledge public
- ❑ Exclusive means “to exclude”
 - ❑ A fundamentally “nasty” concept



The United States.

To all to whom these Presents shall come. Greeting.

Whereas Samuel Hopkins of the City of Philadelphia and State of Pennsylvania hath discovered an Improvement, not known or used before, such Discovery, in the making of Pot ash and Pearl ash by a new Apparatus and Process, that is to say, in the making of Pearl ash 1st by burning the new Ashes in a Furnace, 2^d by depositing and boiling them when so burnt in Water, 3^d by drawing off and settling the ley, and 4th by boiling the ley into balls which then are the true Pearl ash, and also in the making of Pot ash by fluxing the Pearl ash so made as aforesaid; which Operation of burning the new Ashes in a Furnace, preparatory to their Deposition and boiling in Water, is new, bears little Resemblance; and produces a much greater Quantity of Salt: These are therefore in pursuance of the Act, entitled "An Act to promote the Progress of useful Arts", to grant to the said Samuel Hopkins, his Heirs, Administrators and Assigns, for the Term of fourteen Years, the sole and exclusive Right and Liberty of using and vending to others the said Discovery, of burning the new Ashes previous to their being deposited and boiled in Water, according to the true Intent and Meaning of the Act aforesaid. In Testimony whereof I have caused these Letters to be made patent, and the Seal of the United States to be hereunto affixed. Given under my Hand at the City of New York this thirty first Day of July in the Year of our Lord one thousand seven hundred & Ninety.

G. Washington

City of New York July 31st 1790. -

I do hereby certify that the foregoing Letters patent were delivered to me in pursuance of the Act, entitled "An Act to promote the Progress of useful Arts"; that I have examined the same, and find them conformable to the said Act.

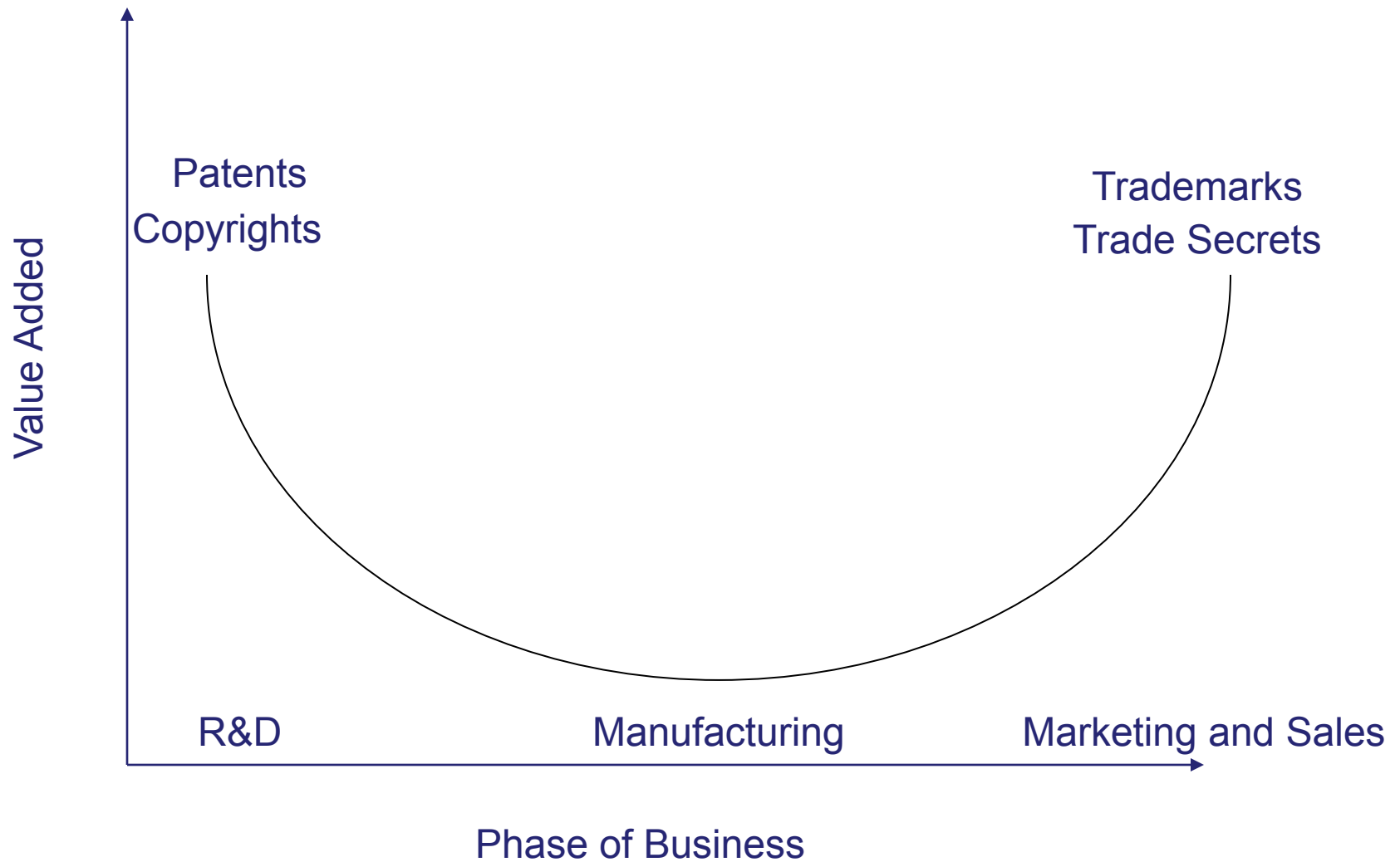
**First U.S. Patent: U.S. Patent No. 1X
"Method of producing pot ash and pearl ash"
Issued to Samuel Hopkins on July 31, 1790.**

The Types of Intellectual Property

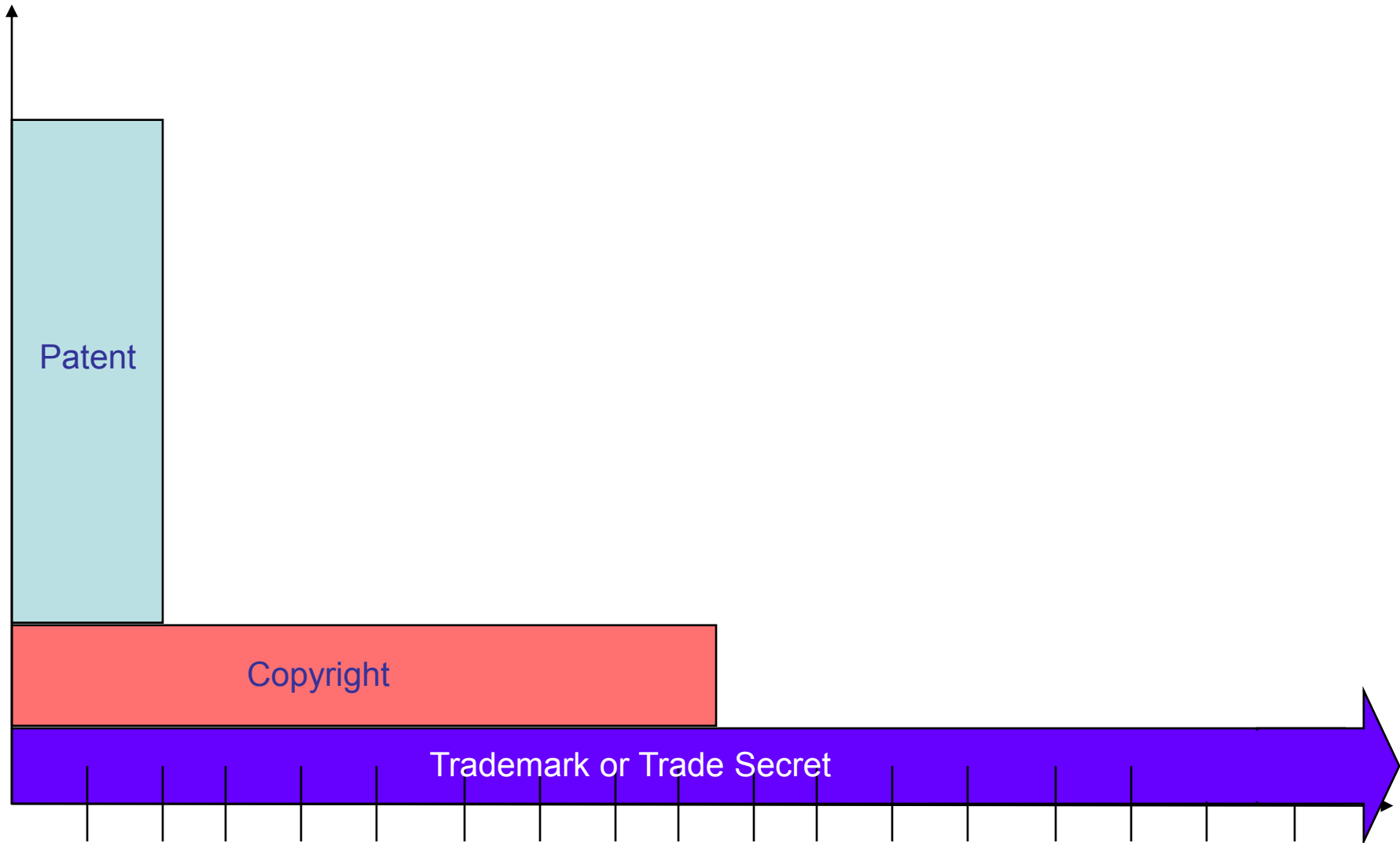
Type of IP	Subject Matter Covered	Real World Application
Patents	Processes, machines, manufactures, compositions of matter; also plants and designs	Fruits of research and development in <u>Science, Technology, Industry (and Business)</u>
Copyrights	Writings, images and other original works of authorship	Creative expression in <u>Literature, Entertainment, Arts (and Programming)</u>
Trade Secrets	Data, information and know-how not widely known	Confidential information, especially technical, planning, financial and customer, used in <u>Business</u>
Trademarks	Brands, company names, product/service dress and domain names	Establishing identification and differentiation where science, technology, arts, etc. enter the <u>Commercial Marketplace</u>

Value in IP

❑	Patents	Humira	\$19.4 billion in 2018
❑	Copyrights	Lord of the Rings	3 films = \$2.9 billion
		Harry Potter	8 films = \$7.7 billion
❑	Trade Secrets	Coca Cola formula	1.9 billion drinks per day \$32 billion revenue in 2018
❑	Trademarks	Coca-Cola®	\$80 billion



Scope of
Protection



Copyright

Trademark or Trade Secret

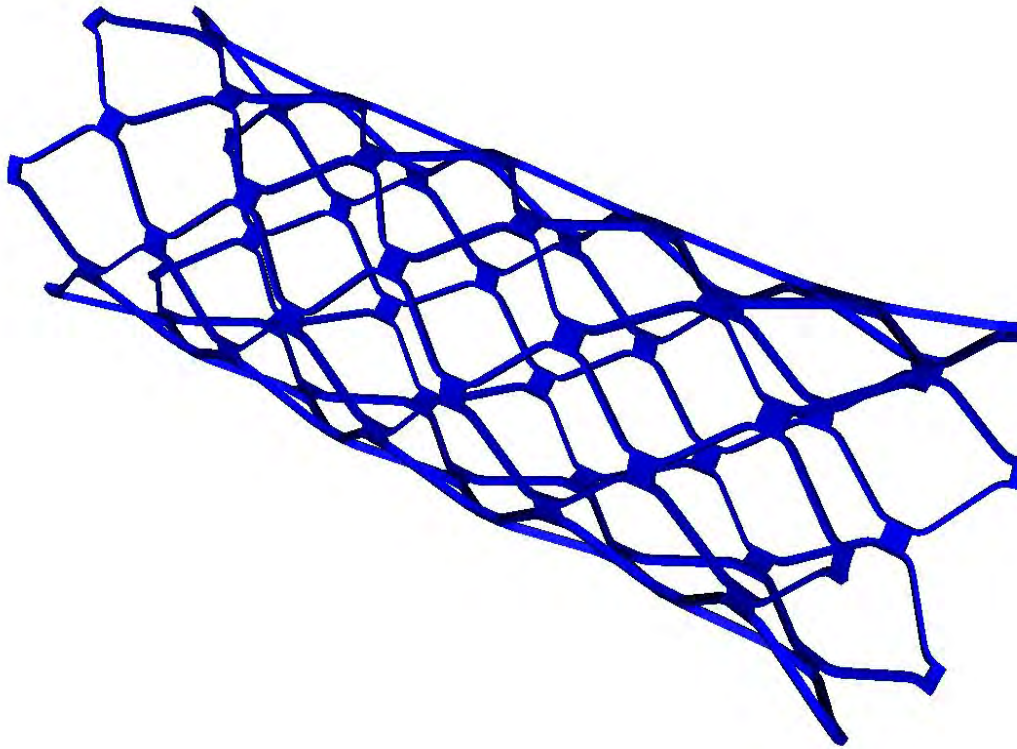
Duration of Protection

Pioneering Inventions Get Broad Patent Coverage

Pioneering Inventions Get Broad Patent Coverage



Dr Julio Palmaz



United States Patent [19]

Palmaz

[11] Patent Number: 4,733,665

[45] Date of Patent: Mar. 29, 1988

[54] EXPANDABLE INTRALUMINAL GRAFT, AND METHOD AND APPARATUS FOR IMPLANTING AN EXPANDABLE INTRALUMINAL GRAFT

[75] Inventor: Julio C. Palmaz, San Antonio, Tex.

[73] Assignee: Expandable Grafts Partnership, San Antonio, Tex.

[21] Appl. No.: 796,009

[22] Filed: Nov. 7, 1985

[51] Int. Cl.⁴ A61M 29/00

[52] U.S. Cl. 128/343; 604/104;

604/96; 623/1

[58] Field of Search 128/343-344, 128/1 R; 623/1; 604/96, 104, 106-109

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Primary Examiner—C. Fred Rosenbaum

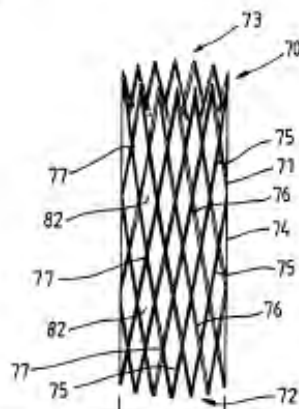
Assistant Examiner—Gene B. Kartchner

Attorney, Agent, or Firm—Ben D. Tobor

[57] ABSTRACT

An expandable intraluminal vascular graft is expanded within a blood vessel by an angioplasty balloon associated with a catheter to dilate and expand the lumen of a blood vessel. The graft may be a wire mesh tube.

28 Claims, 6 Drawing Figures



Claim 1

1. A method for implanting a prosthesis within a body passageway comprising the steps of:

disposing the prosthesis upon a catheter;

inserting the prosthesis and catheter within the body passageway by catheterization of said body passageway; and

providing controllable expansion of the prosthesis at a desired location within the body passageway by expanding a portion of the catheter associated with the prosthesis to force the prosthesis radially outwardly into contact with the body passageway, by deforming a portion of the prosthesis with a force in excess of the elastic limit of the portion of the prosthesis, to implant the prosthesis within the body passageway.

Claim 18

18. An expandable prosthesis for a body passageway, comprising:

a tubular shaped member having first and second ends and a wall surface disposed between the first and second ends, the wall surface being formed by a plurality of intersecting elongate members, at least some of the elongate members intersecting with one another intermediate the first and second ends of the tubular shaped member;

the tubular shaped member having a first diameter which permits intraluminal delivery of the tubular shaped member into a body passageway having a lumen; and

the tubular shaped member having a second, expanded diameter, upon the application from the interior of the tubular shaped member of a radially, outwardly extending force, which second diameter is variable and controlled by the amount of force applied to the tubular shaped member, at least some of the elongate members being deformed by the radially, outwardly extending force, to retain the tubular shaped member with the second, expanded diameter, whereby the tubular shaped member may be expanded to expand the lumen of the body passageway and remain therein.

J&J and the Stent Market

- ❑ J&J launched the first cardiovascular stent
 - ❑ The Palmaz-Schatz stent
 - ❑ 1994
- ❑ Took the market by storm
 - ❑ >\$1 billion in sales in first year
 - ❑ Most successful device launch ever
 - ❑ >90% share in 1996
- ❑ J&J lost the market equally quickly
 - ❑ Guidant launched a better stent
 - ❑ Fall 1997
 - ❑ >70% share in 45 days!
- ❑ J&J exited the stent market in 2011
- ❑ But the pioneering Palmaz patents had massive value

OCTOBER 1, 2008

J&J Wins \$1.2 Billion in Stent Case

By SHIRLEY S. WANG

A federal judge in Delaware awarded a final judgment of \$1.2 billion to [Johnson & Johnson's](#) cardiac device unit Tuesday in long-running patent-infringement cases against [Boston Scientific Corp.](#) and [Medtronic Inc.](#)

The award stems from damages assessed in cases from 2000 and 2005 that found that Boston Scientific and Medtronic's bare metal stents -- tiny scaffolds that prop open arteries -- infringed on a patent owned by J&J. The devices involved in the dispute are no longer on the market.

Two weeks ago, U.S. District Court Judge Sue Robinson reinstated the eight-year-old damages, originally \$271 million against Medtronic and \$324 million against Boston Scientific. The verdict was set aside in 2002 and the case retried in 2005, which J&J also won. After calculating interest, Medtronic must pay approximately \$521 million and Boston Scientific about \$703 million.

Earlier this year, a federal appeals court affirmed the judgments that Medtronic and Boston Scientific had infringed J&J's patents but didn't direct the Delaware court to reinstate damages.

"The company is pleased that a judgment was entered and that the patent for Dr. Palmaz's groundbreaking product has been acknowledged," J&J stated in a release, referring to stent creator Julio Palmaz.

Boston Scientific said it will appeal the judgment. Medtronic couldn't be immediately reached for comment.

—Kerry Grace contributed to this article.

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