

Patent Litigation

Primer



CORE LEGAL **2.0**

PATENT LITIGATION | Primer

The following primer is a basic overview of patents and patent litigation. Unlike some of our other practice areas (e.g., product liability), our clients routinely represent both plaintiffs and defendants in patent litigation. Typically the patent owner is the plaintiff and the defendant is the party being accused of infringing or stealing the technology or invention described in the patent. These cases usually revolve around **infringement** and **invalidity**, described in more detail below. All patent cases are tried in Federal Court.

A patent gives the inventor/owner the right to “exclude others from making, using, offering for sale, or selling” an invention or “importing” it into the US. It does not give the owner the right to make, use, offer for sale, sell or import the invention, but the right to stop others.

THE ANATOMY OF A PATENT

Every patent shares a common structure and layout and is divided into sections to make them easy to navigate. Here are the key elements of the cover page of the patent:

Title

A brief description of the invention

Inventor(s)

Can be multiple inventors; the lead inventor's name is also listed at the top of the patent and can be used as shorthand (e.g., “MacLaine”)

Assignee

The company that owns the patented invention; inventors are usually company employees

Filing Date

The date the application was filed, but not always the “effective filing date” for purposes of prior art

Priority Date

A patent can “claim priority” to an earlier patent application if that application sufficiently describes the invention

US011044979B2

(12) **United States Patent**
MacLaine

(54) **ATTACHMENT FOR A HAND HELD APPLIANCE**

(71) Applicant: **Dyson Technology Limited, Wiltshire (GB)**

(72) Inventor: **Alasdair Michael MacLaine, London (GB)**

(73) Assignee: **DYSON TECHNOLOGY LIMITED, Malmesbury (GB)**

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **14/656,357**

(22) Filed: **Mar. 12, 2015**

(65) **Prior Publication Data**
US 2015/0265024 A1 Sep. 24, 2015

(30) **Foreign Application Priority Data**
Mar. 20, 2014 (GB) 1404982
Mar. 20, 2014 (GB) 1404985

(51) Int. Cl. **A45D 20/50** (2006.01)
A46B 9/02 (2006.01)
(Continued)

(52) U.S. Cl. **A45D 20/50** (2013.01); **A45D 20/12** (2013.01); **A46B 9/023** (2013.01); **A46B 15/003** (2013.01)
CPC

(58) **Field of Classification Search**
CPC ... **A45D 1/02**; **A45D 2/06**; **A45D 2/10**; **A45D 2/125**; **A45D 2/17**; **A45D 2/14**;
(Continued)

(19) **Patent No.: US 11,044,979 B2**
(45) **Date of Patent: Jun. 29, 2021**

(56) **References Cited**
U.S. PATENT DOCUMENTS
1,504,988 A * 8/1924 Spetzian A45D 4/06 219/226
2,476,002 A 7/1949 Staller (Continued)

FOREIGN PATENT DOCUMENTS
CN 1205617 1/1999
CN 101662969 3/2010 (Continued)

OTHER PUBLICATIONS
International Search Report and Written Opinion dated May 8, 2015, directed to International Application No. PCT/GB2015/050659, 12 pages.
(Continued)
Primary Examiner — Yogesh P Patel
Assistant Examiner — Jennifer Gill
(74) Attorney, Agent, or Firm — Morrison & Foerster LLP

(57) **ABSTRACT**
An attachment for a hand held appliance comprising an inlet; an outlet; and a fluid flow path between the inlet and the outlet, wherein the outlet comprises at least one slot extending from near an inlet end of the attachment towards a distal end of the attachment and wherein the outlet is at least partially defined by an external surface of the attachment wherein fluid emitted from the outlet is blown along the length of the attachment. The outlet comprises slots radially spaced around the attachment. Fluid emitted from the outlet flows around the external surface of the attachment, tangentially to the external surface, and is attracted to the surface of the attachment. The attachment has a longitudinal axis extending from the first end to the distal end and the at least one slot may be parallel to the longitudinal axis.

32 Claims, 17 Drawing Sheets

Patent Number

Shortened to the last three numbers, with a backwards apostrophe (the ‘979 Patent)

Date of Patent

The date the Patent Office approved/issued the patent

References Cited

“Prior art” references that considered by the patent office; the patent examiner concluded the claims were patentable over this list of prior art (note that the list usually continues on next page of the patent)

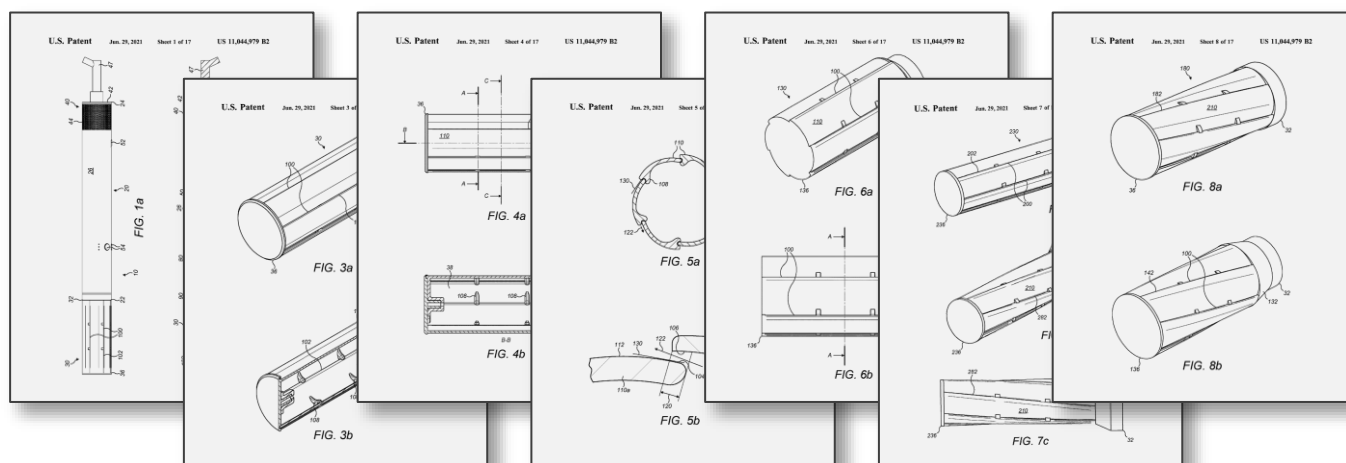
Representative Drawing

Patent examiner chooses the drawing that goes on the front page; usually defaults to Figure 1, but any drawing can be selected

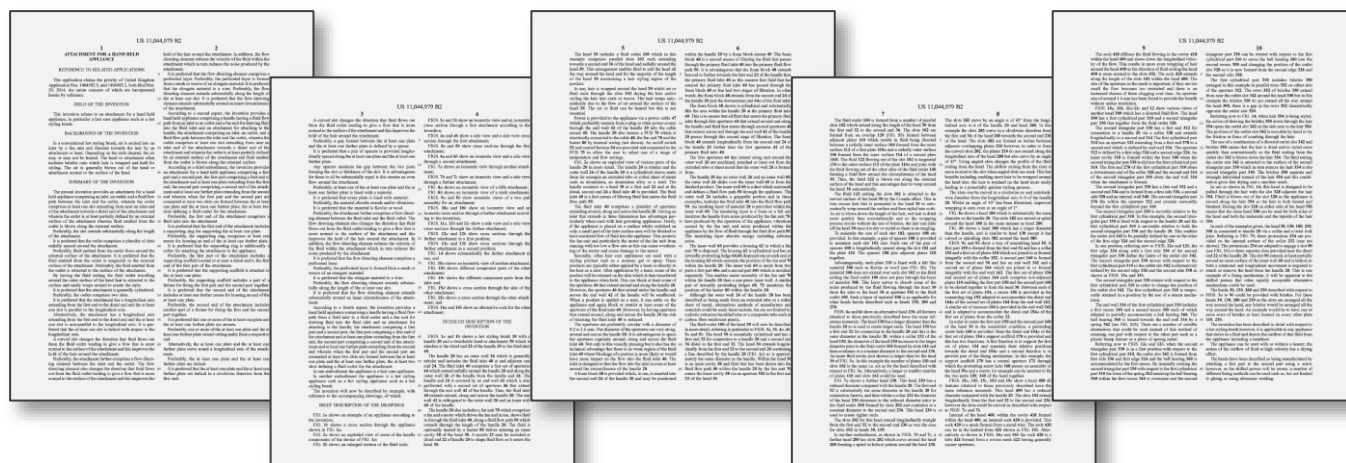
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THE ANATOMY OF A PATENT

Figures: the drawings (called “Figures”) help the reader understand the invention and must show all claimed elements. Drawings labeled “Prior Art” are not part of the patented invention, but are used to document any prior processes that existed before the invention was made. The Specification includes a description of each drawing and identifies the numbered components annotated on the Figures.



Specification: refers to the written part of the patent not including the front page and the drawings, and provides the most relevant context for interpreting the claims which are in the final section of the patent (more on that below). For example, if the specification includes a definition for a term in the claims, then the claims will be interpreted using that definition. Basically, all terminology in the claims will be interpreted in a way that is consistent with the terminology used in the Specification. You may run into the famous phrase “the patentee is their own lexicographer” particularly when doing slides for a *Markman* hearing.



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THE ANATOMY OF A PATENT

Citing to the Specification: at the top of each page of the specification you'll see numbers, which are called "columns" which assist in navigating and citing to the patent. For example, this portion of the patent would be cited as: '979 Patent at 3:1-4.

The diagram illustrates a patent specification page with a light gray background. A large box contains the text of the specification. To the right of the box, two labels with arrows point to specific parts of the text: 'Column Number' points to a box containing the number '3', and 'Line Number' points to a box containing the number '5'. The text in the box is as follows:

A curved slot changes the direction that fluid flows out from the fluid outlet tending to give a flow that is more normal to the surface of the attachment and this improves the hold of the hair around the attachment.

Preferably, a gap formed between the at least one plate and the at least one further plate is defined by a spacer.

It is preferred that a pair of spacers is provided longitudinally spaced along the at least one plate and the at least one further plate.

Any spacers maintain the gap between the two parts forming the slot or thickness of the slot. It is advantageous for these to all be substantially equal as this creates an even flow around the attachment.

The numbers '3' and '5' are enclosed in small boxes. The number '10' is located at the end of the last paragraph.

Claims: the most important part of the patent is the claims, which set forth and define the patent's scope of exclusive rights to the invention. The claims describe what the patent does (or does not) cover. Each claim element should be shown in the drawings and described in the detailed description of the invention in the Specification.

The invention claimed is:

1. An attachment for a hand held appliance comprising an inlet in a proximal first portion of the attachment; an outlet in a cylindrical second portion of the attachment; and a fluid flow path between the inlet and the outlet, wherein the outlet in the cylindrical second portion of the attachment comprises at least one slot extending continuously from the

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THE ANATOMY OF A PATENT

Independent v. Dependent Claims: each independent claim stands on its own, and dependent claims always refer back to (and “depend” from) another independent claim. Independent claims are the broadest claims in the patent, and dependent claims narrow the scope of an earlier, independent claim.

Independent Claim

The invention claimed is:

1. An attachment for a hand held appliance comprising an inlet in a proximal first portion of the attachment; an outlet in a cylindrical second portion of the attachment; and a fluid flow path between the inlet and the outlet, wherein the outlet in the cylindrical second portion of the attachment comprises at least one slot extending continuously from the proximal first portion to a distal end of the attachment, wherein the outlet is at least partially defined by an external surface of a substantially contiguous wall of the attachment and is configured to direct fluid flow emitted from the outlet tangentially along and around the external surface of the substantially contiguous wall to form a circumferential fluid flow around the cylindrical second portion of the attachment that encourages hair to automatically wrap around the cylindrical second portion, wherein the external surface of the substantially contiguous wall is an outermost surface of the attachment along an entire length of the attachment from a beginning of the at least one slot to an end of the at least one slot, and wherein the distal end of the attachment is closed.

Dependent Claim

2. The attachment of claim 1, wherein the outlet comprises a plurality of slots radially spaced around the attachment.

Dependent Claim

3. The attachment of claim 1, wherein the attachment is configured so that, in use, the fluid emitted from the outlet is attracted to the external surface of the attachment.

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BASIC PATENT LAW CONCEPTS

Lifespan of a Patent

Utility and plant patents have a term for up to **20 years** from the date the first non-provisional application for patent was filed. A design patent is granted for a term of **15 years** from the date of grant. Under certain unusual conditions, patent terms may be extended or adjusted.

What Can Be Patented?

A utility patent may cover “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof.” A design patent may cover “any new, original, and ornamental design for an article of manufacture,” and a plant patent may cover a “distinct and new variety of plant, including cultivated sports, mutants, hybrids, and newly found seedlings, other than a tuber-propagated plant or a plant found in an uncultivated state,” invented or discovered and asexually reproduced.

For a patent to be issued, the invention must meet four conditions:

1. **Usefulness** (the invention must work and cannot just be a theory)
2. **A clear description** of how to make and use the invention (called “written description”)
3. **Novelty** (something new and not done before)
4. **“Not obvious”** as related to a chance to something already invented

The Patent Application Process

Typically referred to as the “prosecution” of a patent, this entails submitting a patent application to the patent office (“USPTO”). The applicant will submit the claims, specification and drawings to a patent “examiner” at the USPTO who will review these materials and provide feedback on how to revise the patent to make it patentable. This includes citing and examining prior art to ensure the patent is novel and not obvious based on prior inventions. All the paperwork exchanged during patent prosecution is contained in a document called the “file history” or “prosecution history” of the patent.

Markman Hearing

Also known as a **claim construction hearing** and is based on the ruling in *Markman v. Westview Instruments, Inc.*, 517 U.S. 370 (1996), which dictates that a judge – not a jury – is responsible for determining the meaning of the terms in a patent. Prior to the hearing, the parties will submit their proposed definitions of certain terms in the patent that are disputed, and then they present their respective arguments to the judge. The unspoken underpinning of this hearing is that each party is fighting for a definition that helps their legal arguments later in the case, such as infringement or invalidity.

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BASIC PATENT LAW CONCEPTS

Infringement

This refers to the unauthorized act of using, making, selling or importing a patented invention without the permission of a patent holder (such as a license). A patent holder has the right to sue an alleged infringer. Patent rights are often analogized with property rights, such as owning a house and building a fence to protect your property.

Owner Has the Right To Protect Its Property from Trespassers



Owner Has the Right To Protect Its Property from Trespassers



Owner Has the Right To Protect Its Property from Trespassers



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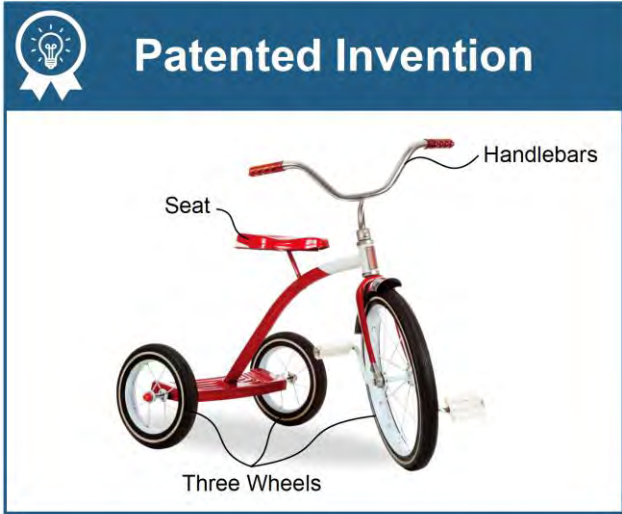
BASIC PATENT LAW CONCEPTS

Infringement (continued)

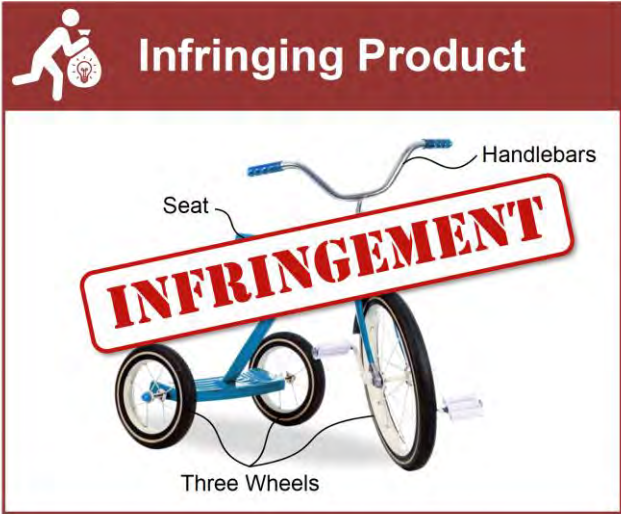
To prove infringement, the patent owner must demonstrate that every element of their invention as described in their claim or claims is “met” or present in the allegedly infringing product or invention. There are several types of infringement:

1. **Direct Infringement:** the manufacturing of a patented product occurs without permission
2. **Indirect Infringement:** an indirect infringer induces infringement by encouraging or aiding another
3. **Contributory Infringement:** a party supplies a direct infringer with a part that has no substantial non-infringing use
4. **Literal Infringement:** there is direct correspondence between the words in the patent claims and the infringing device
5. **Willful Infringement:** involves an intentional disregard for another’s patent rights, and includes direct and intentional copying as well as continued violation after notice (when the patent holder or their attorney issues a cease and desist letter to the infringer, also known as a demand)

Infringement



Patented Invention



Infringing Product

All required elements are met

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BASIC PATENT LAW CONCEPTS


Invalidity

The defendant in a patent case will often claim that the patent is invalid and therefore unenforceable against them even if they are found to infringe. Typical invalidity attacks include lack of novelty (anticipation), prior use, prior publication, obviousness, inutility, insufficiency of the specification (called "lack of written description"), and non-patentable subject matter.

Basic Concepts:

- 1. Prior Art:** prior art refers to any publicly available information or knowledge that existed before the earliest filing date of a patent application. This includes prior patents, scientific publications, public demonstrations, product manuals, or any other public uses and publicly accessible materials.
- 2. Person of Ordinary Skill in the Art:** often shortened to POSA or POSITA, this is a legal concept by which certain important issues are viewed from the perspective of a POSA, including claim construction, validity, and infringement. The qualifications of a POSA varies depending on the case and the technology at issue, as defined by each side's expert. The POSA is deemed to have looked at and read publicly available documents and to know of public uses in the prior art, never miss the obvious or stumble on the inventive, have no private idiosyncratic preferences or dislikes, never think laterally, and brings to the workbench the common general knowledge and experience.

Person of Ordinary Skill in the Art




Phillips v. AWH Corp.,
435 F.3d 1303, 1313
(Fed. Cir. 2005)
(en banc)

The words of a claim are given "the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention."

The Court must look to "those sources available to the public that show what a person of skill in the art would have understood disputed claim language to mean."

735 Patent, "local area network"


Person of Ordinary Skill in the Art (POSITA)



- At least a bachelor's degree in computer science, computer engineering, or equivalent
- 1-2 years designing and implementing schedulers and/or queueing disciplines for network devices such as routers or switches
- Timeframe: 2001

Kevin Jeffrey, Ph.D.


Person of Ordinary Skill in the Art



POSITA

- Bachelor's degree in electrical engineering, computer engineering, computer science or similar field + two years of experience
- or
- Master's degree in electrical engineering, computer engineering, computer science or similar field

Navini in View of the Knowledge of Person of Skill



Navini

Adaptive Phase Array Antenna: Omnidirectional Broadcast Beams and Directed Scanning Beams

Person of Skill

Obvious to Add Multiple Sectors

PATENT LITIGATION | Primer

BASIC PATENT LAW CONCEPTS

Invalidity - Basic Concepts (continued)

- 3. Anticipation:** also referred to as a lack of novelty, this challenges the validity of a patent alleging that what is claimed in the patent is not new. Anticipation usually means that *one prior art reference* predated the patent at issue, and covers all of the elements of the asserted claims, therefore making the patent invalid.

Anticipation

Prior Art	Patented Invention

One reference has all required elements

Dell's High Burden to Prove Invalidity

Anticipation

Requires evidence that a prior art reference discloses every element of a claim

The '435 Patent Is Presumed Valid

Anticipation by Xue

Highly Water-Soluble, Fluorescent, Unaggregated Fluorene-Based Copolymers with Poly(ethylene glycol)-Terminated Spacers for Sensitive Detection of Endothelial cells

Cullen Xue,¹ Giuseppe Vignola,² Steve Johnson,³ David Noh,⁴ Adam Smith,⁵ Wilfred Brown,⁶ Christopher Martin,⁷ Scott E. Bailey,⁸ and Haining Li^{1*}

Chem. Res. 389, 11, 1200-1205

- ✓ Ar
- ✓ Aryl
- ✓ Non-ionic side group capable of imparting water solubility
- ✓ MU
- ✓ G₁ and G₂ End Caps
- ✓ Comprises a Biomolecule
- ✓ Proportions of Ar and MU

The '600 Patent Is Anticipated by WO369

'600 Patent	WO369
composition comprising mRNA	"RNA encoding an immunogen is delivered to a large mammal at a dose of between 2µg and 100µg. Thus the invention provides a method of raising an immune response in a large mammal, comprising administering to the mammal a dose of between 2µg and 100µg of immunogen-encoding RNA."
encoding a betacoronavirus (BetaCoV) S protein or S protein subunit	"In some embodiments the immunogen elicits an immune response against one of these viruses... Coronaviruses: Viral immunogens include, but are not limited to, those derived from a SARS coronavirus, avian infectious bronchitis (IBV), Mouse hepatitis virus (MHV), and Porcine transmissible gastroenteritis virus (TGEV). The coronavirus immunogen may be a spike polypeptide"
formulated in a lipid nanoparticle	"[T]he RNA is preferably administered in combination with a delivery system... Liposomes are a preferred delivery system"
	"RNA was encapsulated in liposomes... Made of 10% DSPC (zwitterionic), 45% DiO (DMA, cationic), 48% cholesterol and 2% PEG-conjugated DMG"

- 4. Written Description / Enablement:** this concept is covered by 35 U.S.C. § 112, and requires that patent owner does not try to claim more than they actually invented.

§ 112

Patented Invention

Written description and enablement requirements ensure that patent owner does not try to claim more than they actually invented

WRITTEN DESCRIPTION

Allergan, Inc. v. Sandoz Inc., 796 F.3d 1293, 1308 (Fed. Cir. 2015)

"The written description requirement is met when the disclosure allows one skilled in the art to visualize or recognize the identity of the subject matter purportedly described. There is no rigid requirement that the disclosure contain either examples or an actual reduction to practice; the proper inquiry is whether the patentee has provided an adequate description that in a definite way identifies the claimed invention in sufficient detail such that a person of ordinary skill would understand that the inventor had made the invention at the time of filing."

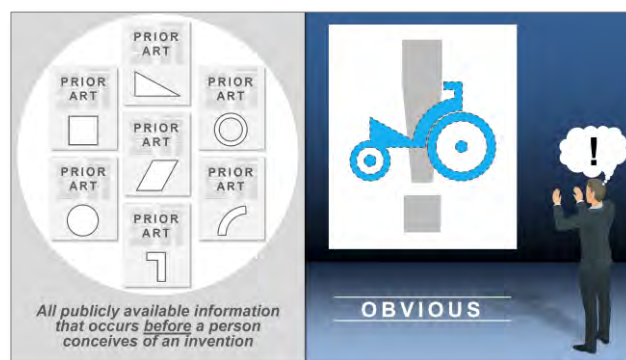
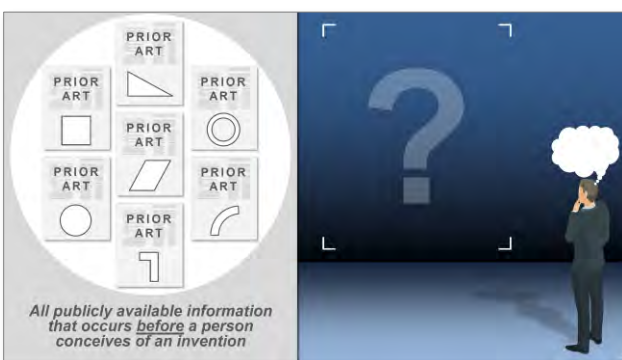
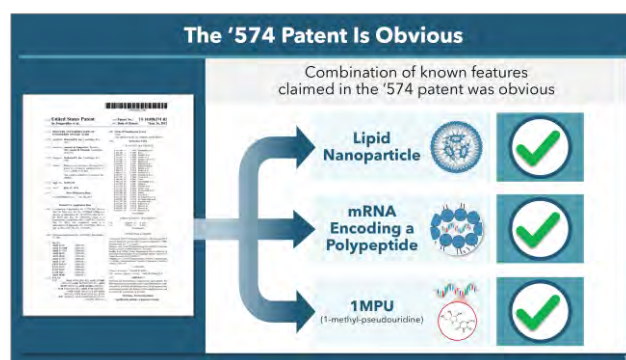
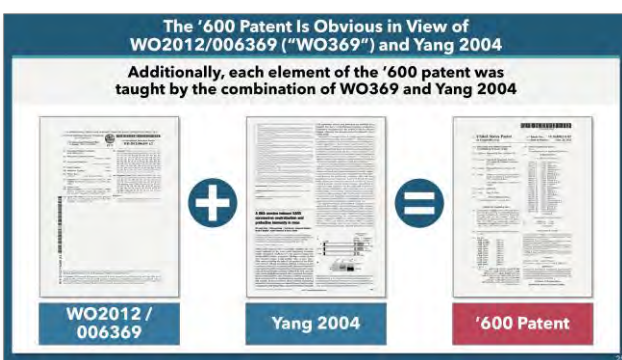
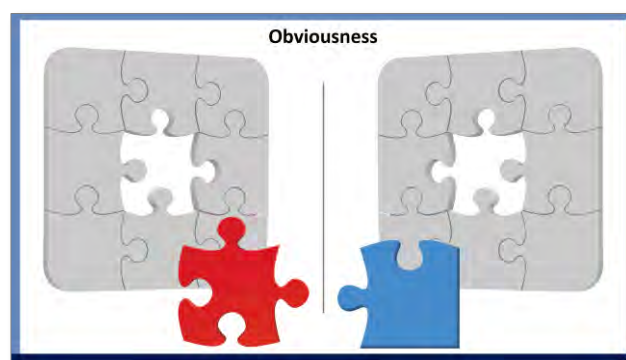
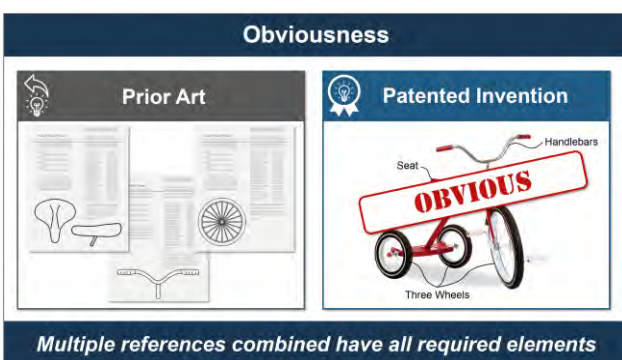
REGENERON POW-11116

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BASIC PATENT LAW CONCEPTS

Invalidity - Basic Concepts (continued)

- 5. Obviousness:** this is a common defense that challenges the validity of a patent on the basis that it was not inventive, and tests whether or not a POSA would find it self-evident that the invention would work, the effort required to come to the invention experimentally, and the motivation to find the solution based on prior art and the climate of the field of invention. Unlike anticipation that usually assesses one prior art reference, obviousness is usually proven by combining *several prior art references* together to cover the claimed invention.



BASIC PATENT LAW CONCEPTS

Invalidity - Basic Concepts (continued)

Claim Charts:

Since every element of the patent's claims must be present in the prior art to invalidate a patent via anticipation or obviousness, one of the most effective ways to demonstrate invalidity is with a claim chart. This allows you to step through each patent limitation and pair with the matching elements in the prior art, to show that the claim element is "taught" by the prior art:

'878 Patent, Claim 1: Invalidity Based on JVT-F100d2 + H.324

'878 Patent, Claim 1

1. A transmitting apparatus which transmits multiplexed data which is obtained by multiplexing coded audio data and coded picture data, said transmitting apparatus comprising:
an audio processing unit configured to code audio data to obtain coded audio data;

Prior Art

The diagram illustrates the H.324 multimedia system architecture. It starts with a 'Microphone' inputting into an 'Audio codec (G.723)'. This codec outputs to a 'Speech path delay' block, which then feeds into a 'Multiplexing module (G.223)'. The multiplexing module also receives input from a 'Video codec (H.263/2)' and a 'Control processor (G.223, G.224, G.225)'. The output of the multiplexing module goes to a 'Modem (V.34/2)'. The modem is connected to a 'User interface' which includes a 'Speaker' and a 'VCI' (Video Codec Interface) block. A 'Speaker control' block is also shown, connected to the 'Audio codec (G.723)' and the 'Control processor'.

Figure 1.H.324 - Block diagram for H.324 multimedia system

The Audio codec (G.723) encodes the audio signal from the microphone for transmission, and decodes the audio code which is output to the speaker. Optional delay in the receiving end path compensates for the video delay, so as to maintain audio and video synchronization.

[1] ITU-T Recommendation G.723.1 (1996), Speech codec: Dual rate speech codec for multimedia communications transmitting at 3.3 and 6.3 kbps.

'878 Patent (DXT019). Claim 1: H.324 (DXT019) at 2-3 and Fig. 1

[illegible]

Newman Teaches Claim 13

13. An apparatus for routing traffic in a packet-switched network comprising a plurality of nodes, comprising:

- a processor module for receiving a traffic flow comprising a plurality of packets;
- a switching module coupled to the processor module; the switching module comprising:
 - egress node information retained for determining an egress node associated with each of the plurality of packets;
 - wherein the processor module is adapted for determining, for each packet, using the egress node information from the switching module, the egress node associated with the packet; the egress node comprising an egress point by which the packet is assigned to enter the load-balancing network;
 - determining, for each packet, whether a congestion condition exists for the egress node; and
 - processing the packets such that packets associated with egress nodes for which the congestion condition does not exist have a different queuing priority within the load-balancing network than packets associated with egress nodes for which the congestion condition exists.

Newman Teaches Claim 13

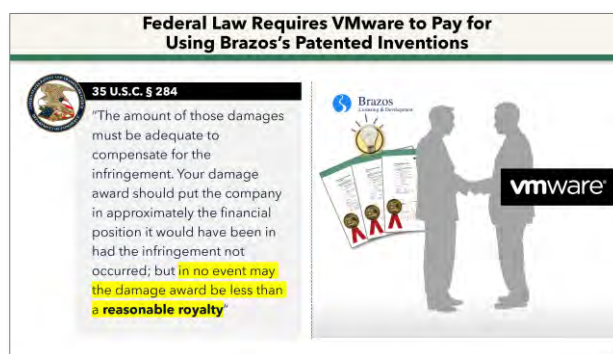
[illegible][illegible]

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BASIC PATENT LAW CONCEPTS

Damages

The value of damages to be awarded in patent infringement cases is based on what a **reasonable royalty** to the technology would be had the infringing party taken a license to the patented invention. This royalty rate is assessed based on what the parties would have agreed to based on a **hypothetical negotiation at the time of first infringement**. The factors that are considered when determining a reasonable royalty are set forth in the seminal case *Georgia-Pacific Corp. v. United States Plywood Corp.*, 318 F. Supp. 1116 (S.D.N.Y. 1970). There are 15 *Georgia-Pacific* factors that are assessed by each side's damages experts - note that these are abbreviated for purposes of the demonstrative used at trial; the full language can be found here: <https://www.ipglossary.com/glossary/georgia-pacific-factors/>.



Georgia-Pacific Factors

1	Royalties received by the patentee for the licensing of the patents-in-suit
2	Rates paid by the licensee for the use of other patents comparable to the patents-in-suit
3	Nature and scope of the license, as exclusive or nonexclusive, or as restricted or nonrestricted
4	Licensor's established policy and marketing program to maintain its patent monopoly
5	Commercial relationship between the licensor and licensee
6	Effect of selling the patented specialty in promoting sales of other products of licensee
7	Duration of the patent and the term of the license
8	Profitability of the product made under the patents, its commercial success, and its popularity
9 & 10	Utility and advantages of the patented property over old modes or devices, nature of the patented invention, character of its commercial embodiment, and benefits to those who used the invention
11	Extent to which the infringer made use of the invention and evidence of the value of use
12	Portion of the profit or of the selling price that may be customary in the particular business or in comparable business to allow for the use of the invention or analogous inventions
13	Portion of the profits credited to the invention as distinguished from nonpatented elements, the manufacturing process, business risks, or features/improvements added by the infringer
14	Opinion and testimony of qualified experts
15	The amount that a licensor and a licensee would have agreed upon

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A NOTE ON PATENT PHARMACEUTICAL CASES

The Hatch-Waxman Act

Some patent pharmaceutical cases fall under the Hatch-Waxman Act, which is a legal framework enacted by Congress in 1984 to streamline the process for generic pharmaceutical approvals and preserve incentives for innovation, by fast-tracking the approval of generic drugs to get lower costs drugs onto the market. Brand name drug manufacturers with a patent on their pharmaceutical invention will often sue a generic pharmaceutical manufacturer who is making a copycat drug while their patent is still in force. Brand name manufacturers are often alerted to the fact that a generic company is making a copycat drug when the generic company files an Abbreviated New drug Application (ANDA) with the FDA, which is what the Hatch-Waxman act allows generic manufacturers to file in order to get their drugs approved quickly.

The two main differences between Hatch-Waxman/patent pharmaceutical trials and "normal" patent trials are: 1) these cases are decided by a judge and not a jury (known as a "bench trial"), and 2) often infringement is stipulated/admitted because there are no differences between the generic drug and the patented drug (deemed "bioequivalent"). In those cases, the only issue for the judge to decide is the validity of the patent, since infringement is assumed.

HELPFUL RESOURCES

- **USPTO Patent Search and File History Search** for downloading high resolution PDF versions of patents as well as the prosecution history:
 - <https://patentcenter.uspto.gov>
- **Google Patents** for downloading PDFs and pulling live text from patents, including foreign patents:
 - <https://patents.google.com>
- **FreePatentsOnline** for downloading PDFs and pulling live text from patents (free signup):
 - <https://www.freepatentsonline.com>
- **The Patent Process: An Overview for Jurors** - this is the video that federal courts show to juries at the beginning of each patent trial, presented by Judge Fogel:
 - <https://www.youtube.com/watch?v=ax7QHQTbKQE>