Intellectual Property:

- IP is a broad term for various legal rights or entitlements that attach to certain types of information, ideas, products, and intangibles in their expressed form.

- IP refers to those legal rights that authors, inventors, and other IP holders or owners may exercise, not to the intellectual work itself.
Intellectual Property: (Continued)

- IP reflects the idea that the subject matter is the product of the creativeness of the human mind or intellect.

- IP rights may be protected at law similar to other forms of property.

Intellectual Property: (Continued)

- IP owners can exercise various exclusive rights and exclude or include others from use.
IP Exclusive Rights

- Only grant the holder the ability to exclude 3rd parties from infringing on their monopoly.
  - Ex: Registered trademark owner can use a mark related to products or services and can exclude others from use related to those products or services.

- Can be transferred, sold, licensed, or mortgaged to 3rd parties
  - Ex: Copyright prevents copying the material form of expression of an idea, but NOT from expressing the same idea in a different form and NOT from using the same form of expression without knowledge of the original held by someone else.

IP Exclusive Rights: (Continued)

- Ex: Patents and trademarks, though, can be used to EXCLUDE others from making, using, offering for sale, or selling the same property for a predetermined time even if they had not seen or heard about the property.
IP Protection

- IP infringement generally carries civil penalties in the form of damages.
- IP theft generally carries possible state and federal civil and/or criminal liability for violations of:
  - Trade secret misappropriation
  - Trademark infringement
  - Copyright infringement
  - Patent infringement

Common Types of Intellectual Property

- Patents
- Trademarks (Service Marks)
- Certification Marks; Collective Marks
- Copyrights
- Trade Secrets (Confidential Information)
- Trade Dress
- Domain Names
- Semiconductor Mask Works
3 Types of Patents

■ Design

■ Plant

■ Utility
  ■ Provisional

Design Patents

■ May be granted for the invention or discovery of any new, original, and ornamental non-functional appearance or design of an article of manufacture.

■ Protects looks or appearance, but not structural, utilitarian, or functional features.

■ May relate to configuration or shape.

■ May relate to surface ornamentation.
Design Patents

- As opposed to utility patents that protect how an invention works or is used.
- Only 1 claim is allowed.
- Term of 14 years from grant (issue date).
- No maintenance fees required.
Plant Patents

- May be granted for the invention or discovery and asexual reproduction of any distinct and new variety of plant.
- Asexual reproduction is reproduction by means other than from seeds.
  - Ex: Rooting of cuttings, layering, budding, grafting.
- Only 1 claim is allowed.
- Term is 20 years from filing date.
- Protects inventor’s right to exclude others from asexually reproducing, selling, or using the plant reproduced.
Provisional Patent Applications

- USPTO has offered this option since June, 1995.
- Simple, lower cost first patent filing ($110) for small entities.
- Provides one year to assess commercial potential before filing more expensive and detailed non-provisional utility application.
- No claims are required.
- No oath or declaration is required.
- Provides an early effective filing date.

Provisional Patent Applications

- Permits an inventor to use “Patent Pending” in connection with the invention.
- Allows inventor or owner to commercially promote the invention with some additional security against theft.
- Preserves application in confidence – is not published.
- Not available for design patents.
- Regular utility (non-provisional) application must be filed within 12 months of the provisional to maintain effective filing date.
Provisional Patent Applications

- The subject matter in the later-filed utility is then entitled to the benefit of the effective filing date of the provisional if it has full support in the written description of the provisional.

- Not examined on the merits like a utility application.

- Inventors must be aware that the “in use” or “on-sale” statutory bar conditions apply so that:
  - Patent rights may be affected if conditions exist and 1 year provisional application period expires without filing a utility application (more on this later).

Utility Patents

- Utility Patent protects functionality
  - May be granted for the invention or discovery of any new, useful, and non-obvious:
    - Process
    - Machine
    - Article of manufacture
    - Composition of matter
    - New and useful uses or improvements of these 4.
  - Personal property that may be sold, mortgaged, assigned, or licensed.
    - May be jointly-owned.
  - Unusual Patents
LIGHT WEIGHT SHOES

Inventors: Takashi, Osamu (JP); Takatsuki, Masatsugu (JP); Tanaka, Tetsuo (JP); Yamamoto, Osamu (JP)

Assignee: Minebea Corporation, Osaka (JP)

Abstract

A shoe including an upper part (1) having a double stitched wavy-bunched line, as provided. The upper part (1) includes a U-shaped surface having a transverse structure and a shoe surface having an inner structure including a part (1 A) and a mesh structure part (1 B). The first reinforced thread elements, 1 B and 1 C, represent the relationship with the mesh reinforced elements of the parts 1 B and 1 C. The shoe upper includes the reinforced thread elements 1 A and 1 B, and the mesh reinforced elements 1 A and 1 C. The mesh reinforced elements 1 A and 1 C are disposed in the shoe surface portion, and the reinforced thread elements 1 A and 1 B are disposed in the rear side of the shoe, respectively. The mesh reinforced elements 1 A and 1 C are disposed in the shoe surface portion, and the reinforced thread elements 1 A and 1 B are disposed in the rear side of the shoe, respectively.

Claims

1. A shoe including an upper part (1) having a double stitched wavy-bunched line, as provided. The upper part (1) includes a U-shaped surface having a transverse structure and a shoe surface having an inner structure including a part (1 A) and a mesh structure part (1 B). The mesh reinforced elements (1 A) and (1 B) represent the relationship with the mesh reinforced elements (1 A) and (1 C). The shoe upper includes the reinforced thread elements (1 A) and (1 B), and the mesh reinforced elements (1 A) and (1 C). The mesh reinforced elements (1 A) and (1 C) are disposed in the shoe surface portion, and the reinforced thread elements (1 A) and (1 B) are disposed in the rear side of the shoe, respectively. The mesh reinforced elements (1 A) and (1 C) are disposed in the shoe surface portion, and the reinforced thread elements (1 A) and (1 B) are disposed in the rear side of the shoe, respectively.

2. The shoe according to claim 1, wherein the mesh reinforced elements (1 A) and (1 C) are disposed in the shoe surface portion, and the reinforced thread elements (1 A) and (1 B) are disposed in the rear side of the shoe, respectively.

3. In the shoe according to claim 2, wherein the mesh reinforced elements (1 A) and (1 C) are disposed in the shoe surface portion, and the reinforced thread elements (1 A) and (1 B) are disposed in the rear side of the shoe, respectively.

4. In the shoe according to claim 3, wherein the mesh reinforced elements (1 A) and (1 C) are disposed in the shoe surface portion, and the reinforced thread elements (1 A) and (1 B) are disposed in the rear side of the shoe, respectively.

5. In the shoe according to claim 4, wherein the mesh reinforced elements (1 A) and (1 C) are disposed in the shoe surface portion, and the reinforced thread elements (1 A) and (1 B) are disposed in the rear side of the shoe, respectively.
Utility Patents

■ Invention must be new (novel):
  ■ Not exactly the same as prior products and processes
  ■ Invention is not patentable if:
    ■ Known to the public before it was invented;
    ■ Described in a publication more than 1 year prior to filing date; or
    ■ Used publicly, sold, or offered for sale to the public more than 1 year prior to filing date.
Utility Patents

- Invention must be **useful**:
  - Must have a useful purpose and be operative for the intended purpose.

- Invention must be **non-obvious**:
  - Usually the most difficult hurdle to cross.
  - Must be non-obvious or a non-obvious improvement over the prior art to one of ordinary skill in the art or technology of the invention at the time of the invention.
  - Examiner can combine prior art references to reject application claims as obvious in view of those references.
  - Objections and/or rejections must be overcome in order to proceed with patent prosecution.

Utility Patents

- Must include a written specification (description and at least 1 claim).

- Must include an oath or declaration (lists the inventors and declares they are the inventors).

- Must include a drawing, if necessary to understand the subject matter.

- Must include filing fee, search fee, examination fee, and additional claim fees.
Utility Patents

- Claims define the scope of the protection provided by the patent and are the heart of an application:
  - Claims are analogous to a listing of property boundaries for a parcel of land.
  - Independent claims stand by themselves.
  - Dependent claims refer back to and limit another claim or claims.

Utility Patents

- Cost depends on multiple factors:
  - Filing fee for small entity status ($165.00)
  - No. of independent claims
  - No. and types of dependent claims
  - Search fee ($270.00)
  - Examination fee ($110.00)
  - Issue fee ($775.00)
  - Publication fee ($300.00)
  - Other factors (non-English, surcharges)
  - Invention Complexity
  - Prior Art Searching Costs
  - Maintenance Fees (3.5 years $490) (7.5 years $1,240.00) (11.5 years $2,055.00)
Utility Patents

- Prior art search should generally be conducted prior to application and an Information Disclosure Statement (IDS) filed.

- Examination may be expedited in certain cases.

Utility Patents

- Examination may take 18 months or longer for first Office Action.

- Application pendency is an average of 24.6 months.

- Application is published 18 months from the earliest priority date unless requested otherwise.
Utility Patents

- Applicant must respond to possible multiple Office Actions:
  - Objections / Rejections

- If granted, patent is valid for 20 years from the date of filing of the application in the U.S.
- Patents in force on June 8, 1995 and those issued after on applications filed prior to June 8, 1995 have a term that is the greater of 20 years from filing or 17 years from grant.

Utility Patents

- Maintenance fees are due 3.5, 7.5, and 11.5 years after the date of patent grant.

- Patent terms may be extended for certain patents where certain periods of delay are beyond the applicant’s control, for example if a drug patent required FDA approval that was not granted until after the patent was granted.
APPEALS

Rejections/objections can be appealed to:

- Commissioner of Patents or Board of Patent Appeals and Interferences.
  - Rejections are based on statute and appealable to the Board, not the Commissioner.
  - Objections, depending on their basis, are appealable to the Commissioner or Board.
- May alternatively re-file the application as a continuation application that includes changes or amendments.
  - May file a Request for Continued Examination.

APPEALS

- May appeal Board decision to either U.S. District Court for the District of Columbia or U.S. Court of Appeals for the Federal Circuit.
  - May appeal from U.S. District Court (D.C.) to Federal Circuit.
- May appeal Commission decision to a U.S. District Court.
  - May appeal from U.S. District Court to Federal Circuit.
- May appeal Federal Circuit decision to U.S. Supreme Court.
Inventorship

- Inventor is the person or persons who conceived the patented invention.

- To be considered an inventor, an individual must contribute to a definite and permanent idea of the complete and operative invention. He or she must participate in the formation of the basic concepts of the invention.

Inventorship

- Conception exists when a definite and permanent idea of an operative invention, including every feature of the claimed subject matter, is known and able to be applied in practice.

- Conception is generally complete only when the idea is so clearly defined in the inventor’s mind that one of ordinary skill in the art could construct the system or perform the process, i.e., reduce the invention to practice, without extensive experimentation or research.
Inventorship

- Inventor need not know that the invention will work for conception to be complete.
  - The discovery that an invention actually works relates to its reduction to practice, and not to its conception.
  - Conception is not complete if subsequent testing shows uncertainty of the idea and that it is not yet a definite and permanent reflection of the complete invention.

Inventorship

- A person who exercises ordinary skill in implementing the instructions of another is not typically considered a joint inventor, since there is no inventive act.
  - A person who merely confirms that the invention works for its intended purpose is generally insufficient to qualify that person as an inventor.
Joint Inventorship

- Two or more people collaborate.
- Each must contribute to the formation or conception of the solution to a problem that comprises the invention.
- Joint inventor must contribute in some significant manner to the conception of the invention.
- Must be some interaction between the individuals.

PRIOR DISCLOSURES (U.S.)

- Patent is barred if, more than 1 year before filing an application, the following occurs:
  - Invention is patented or described in a printed publication anywhere in the world.
  - Invention is in public use in the U.S.
  - Invention is on sale in the U.S.
Patented or Described in a Printed Publication

- Printed description is released to the public anywhere in the world.
  - Must completely disclose the invention.

- "Printed" is broad – paper documents, microfilm, electronic media

Patented or Described in a Printed Publication

- "Publication"
  - Means that the printed document is freely available to the public, even if no one has ever read or seen it.
  - Single copy of a document distributed without restriction qualifies.
  - Documents under non-disclosure or confidentiality agreements are not publicly available and generally do not trigger the bar.
Patented or Described in a Printed Publication

- Documents or posters distributed or shown at tradeshows, documents presented at conferences, or documents posted on web sites can trigger the bar.
- Single copy of a document, i.e. university thesis, stored in a publicly-accessible place (library) anywhere can trigger the bar.
- White papers, printed copies or slide show presentations, marketing materials presented to potential investors can also trigger the bar.
- Draft technical journals published on the Internet for comment can trigger the bar.

Patented or Described in a Printed Publication

- Publication must be public
  - Indexing or cataloguing a document in a library or web index that is “findable” by the public may be considered public disclosure.
In Public Use in the U.S.

- A “totality of the circumstances” test determines if an activity is “public use”:
  - generally any non-secret use

- may be a single use of an invention by anyone without duty of secrecy

- a use or sale of a product made by a secret process is public use of the process

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In Public Use in the U.S.

- new product display or plans to make it presented at tradeshow or professional meeting

- using software to support a website

- may be public use even if one cannot see it (1880’s use of new corset was patent-barring public use)
In Public Use in the U.S.

- secret process or machine hidden in a business making a commercial product may be a public use of the process or machine

- beta test of new technology with a potential customer could be public if not handled properly

- Showing the functionality of an invention to a friend

In Public Use in the U.S.

- Experimental use generally does not trigger the bar, if for testing or research on a claimed feature of the invention.

- Inventor should make sure:
  - control the testing
  - detailed records and progress reports of tests and results are kept
  - confidentiality agreement(s) in place
  - duration and number of tests compare with tests on other similar inventions (reasonable protocol)
  - tests are confidential
In Public Use in the U.S.

- Immaterial that public use was by a third party without knowledge or consent of inventor.
- All that’s necessary is exposure to anyone other than inventor or someone under a non-disclosure agreement.

On Sale in the U.S.

- On sale when it is subject to a commercial sale or offer for sale and ready for patenting.
  - Ready for patenting means reduced to practice or if inventor has drawings or description sufficient to enable one of ordinary skill in the art to practice the invention.
  - So, if an invention is being developed or has some “kinks” to work out, it is not likely ready for patenting and not capable of triggering the on-sale bar.
On Sale in the U.S.

- Unlike “printed publication” and “public use” statutory bars, the on-sale bar has no “public” component, so that such a sale or offer triggers the bar even if conducted privately, secretly, and not publicly.
- General contract principles under the UCC may determine if an offer and acceptance qualifies as a commercial offer for sale.
- A single offer is sufficient, even if not accepted.

PRIOR DISCLOSURES INTERNATIONAL

- Some countries have an “absolute novelty” rule: application must be filed before any enabling disclosure.
- Most foreign countries do not provide a 1-year grace period so that an application must be filed before any public enabling disclosure.
- Should file a U.S. patent application first before any disclosure that might trigger a statutory bar.
- Can then rely on the U.S. filing date as long as foreign application or PCT is filed within 1 year of U.S. application filing date (1 year dates from provisional if that was filed).
- Best to file application before any public disclosure, use, or offer to sell an invention.
PUBLIC DISCLOSURE

- Public disclosure can be written, oral, or electronic and may depend on who's present and the existence of notice of confidentiality:
  - Book publications, tech journal articles, dissertations, posters, slides, lectures, seminars, letters, public conversations, grant proposals; providing information to others by email without notice of confidentiality.

PUBLIC DISCLOSURE

- Is it "enabling"? i.e., does it allow or teach one of ordinary skill in the art to make and use the invention?
- Is it "sufficiently accessible"?
- If prior to filing an application, the invention is to be disclosed to a 3rd party, depending on the situation make sure:
  - If for further testing, take steps for proof.
  - Confidentiality agreement is in place.
  - It is not enabling.
- Inventor should record the date(s) of any disclosure and/or make MSU OTC aware of such beforehand, if possible.
PUBLIC DISCLOSURE

- Grant proposals are not public until available to the public for review.
  - Mark all pages and legend "Confidential", include a notice of its exemption from disclosure under Freedom of Information Act, and include a notice that any release must be approved by the principal investigator.

- Disclose all possible inventions to MSU OTC when submitting a paper for publication or preparing to present a seminar to protect all national and international patent rights to the technology.

IMPROVEMENT PATENTS

- Involve inventions that improve on or add to existing inventions.

- Protect the differences between a new product and previously existing product.

- Can involve a new technology built into an old product: Ex: digital replaces analog control.

- Can involve a new use of an existing invention: new use of a product or composition normally used for other purposes.
IMPROVEMENT PATENTS

- Patentability involves distinctions with existing inventions and determination of novelty, usefulness, and non-obviousness of the improvement.
  - If same inventive entity of existing invention files application for improvement within 1 year of issuance of existing invention, existing invention is not prior art.
  - If after 1 year, regardless of inventorship, existing invention will likely be prior art in evaluating patentability.

IMPROVEMENT PATENTS

- Practicing the improvement may infringe the existing patent (depends on inventive entity and licensure).
- For a pending application, improvements can be protected by filing continuation-in-part applications.
  - Continuation application: (1) claims same invention as previous application, but contains some variation in scope of subject matter claimed (no new disclosure information allowed).
    (2) continues prosecution of earlier application that can’t be completed due to USPTO administrative rules.
IMPROVEMENT PATENTS

- CIP: contains all or part of disclosure of previous application and additional subject matter in the disclosure (new matter) for added improvements, which have priority as of filing the CIP if not supported in earlier specification.
- Divisional: (1) claims an invention independent from that in previous pending application but based on same subject matter as earlier application.
  
  (2) results from earlier application's restriction into subsets of original claims.

OTHER TIPS

- Keep an inventor's notebook
  - Preserves date of conception and reduction to practice
  - Assists determining inventorship (if in issue)
- For trade journal articles, news releases, symposia presentations, research proposals for grant applications and funding solicitations, and the like, if possible preserve confidentiality:
  - Don't make it enabling: omit or limit, if possible, critical details.
  - Limit disclosure to results achieved without describing the means by which results were achieved.
OTHER TIPS

Remember:
- U.S. provides 1-year grace period for filing patent application after disclosure, but many foreign countries do not.
- Foreign patent applications and PCT applications must be filed before any publicly enabling disclosure is made.
- Applicant can rely on a U.S. filing as long as foreign filing is within 1 year of U.S. filing.

Intellectual Property - Patents

Questions?