

The Aesthetic and utilitarian value of metal jewelry in the light of intellectual property

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القيمة الجمالية والنفعية للحلي المعدني في ضوء الملكية الفكرية

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الملخص

تأثر قطاع الموضة حديثاً باتجاه المستهلكين نحو منصات التجارة الإلكترونية لعرض قطع الحلي لاكتساب شعبية وزيادة الطلب عليها، والذي أدى إلى تشابه كبير في التصميم المعروضة، حيث يمكن بسهولة نسخ التصميم وتقليدها، وقد وضعت قوانين الملكية الفكرية ضمانات لحماية هذه الأنواع من التصميم بموجب قوانين الملكية الفكرية مثل حقوق المؤلف، التصميم الصناعية، براءات الاختراع والعلامات التجارية، ولكن أي من هذه القوانين يمكن استخدامه لحماية أصول هذه التصميم. حيث يمكن حماية اسم العلامة التجارية للحلي بتسجيلها بقانون العلامات التجارية، بينما يمكن حماية أصل التصميم للحلي المعدني بقانون حقوق المؤلف أو قانون التصميم الصناعية، وهذا هو السائد انتشاره، في حين أنه يمكن حماية قطعة الحلي نفسها بقانون براءات الاختراع في حالة وجود تقنية فريدة من نوعها في التصميم أو طريقة الوصول اليه، وبالتالي فإن هناك حاجة إلى توضيح الفرق بين كل من مفاهيم التصميم الصناعية وحقوق المؤلف والحقوق التي تستحق بموجب كل قانون، كذلك كيفية حماية الحلي بقانون براءات الاختراع.

الكلمات المفتاحية: تصميم الحلي المعدني، الملكية الفكرية، التصميم الصناعي، براءات الاختراع، نموذج المنفعة.

Abstract

The fashion sector has recently been affected by consumers' orientation towards e-commerce platforms, to display jewelry and fashion pieces to gain popularity and increase the demand for them, which led to a big similarity in the designs presented, as designs can be easily copied and imitated. Intellectual property laws have developed guarantees to protect these types of designs according to intellectual property laws, such as copyright, industrial designs, patent and trademarks. This is where the need to know which of these laws can be used to protect the original designs arose. Where the brand name of jewelry can usually be protected by registering them under the trademark law, while the original design of metal jewelry can be protected under the copyright law or the industrial design law. This is what currently known and prevalent, while the same piece of jewelry can be protected under patent law in the event that there is a unique technology in its design or production. Thus, there is a need to clarify the difference between the concepts of industrial designs and copyrights and the rights under each law, also how jewelry is protected under patent law.

Keywords: Metal jewelry design, Intellectual property, Industrial design, Patent, Utility model.

First: Entrance to the research

1. Introduction:

Intellectual property has always played an important and prominent role in the development of the global economy and in the success of the knowledge economy. Rather, it has become the driving force for scientific, technological, economic, social, and cultural development within countries and for their institutional guarantee. This intellectual property is also an evidence of competitiveness within countries and their strength in general.⁽¹⁾

Whereas publishing the designs or making them available on social media or websites with the aim of marketing them led to the exploitation and imitation of the designs and the appearance of these counterfeit products on the market. Thus, there is a need to direct designers to protect their designs and innovations and learning about the various protection laws to protect these designs, innovations, and the features they can obtain from this protection. Whereas the intellectual property system is a system designed to protect the intellectual achievements created by the human race, not only at the national level but also outside the borders, many of the goods created with intellectual property, including equipment, machinery, jewelry and accessories, may be counterfeited and imitated without any supervision, which will seriously harm the rights holders.⁽²⁾

And the intellectual property laws provide protection for the rights of designers and inventors from infringement on their inventions without obtaining prior permission from them, in addition to the moral rights of the inventor / designer. Also gives them the exclusive right that allows a person to use the intellectual property right without obtaining a permission from the right holder or without the existence of a legal reason, which allows the creator or owner to benefit from his work and investment, thus encouraging the establishment of local industries and foreign investments while protecting the product from theft and copying and limiting the proliferation of counterfeit and copied works, which cause great losses to producers and agents.⁽³⁾

And since intellectual property is the right of a party to own the creative works, that is to say, inventions, literary and artistic works, symbols, names, pictures, models and industrial designs, which it creates, produces, or acquires to its ownership later, and many designers and inventors believe that jewelry designs are protected only by the law on protecting industrial designs, while there are other aspects in jewelry design that can be protected by various laws of the intellectual property laws such as the patent law, utility models and even copyright according to the protection characteristics of each design. Therefore, it is necessary to clarify the different ways in which the designer can protect his rights for his innovations and creativity in the field of jewelry and to clarify the characteristics of this protection to preserve the rights of designers and to support the national economy.⁽⁴⁾

2. Research problem:

Due to the orientation of jewelry designers and creators towards publishing their creativity and products on social media or websites with the aim of marketing them, which leads to exploitation and imitation of the designs and the appearance of these counterfeit products on the market. It is important to direct designers to protect their designs and innovations and to learn about the various protection laws to protect their rights, and due to the confusion between the different concepts and laws of intellectual property of patents and industrial models, the research problem focuses on the need to clarify the appropriate methods of protection for the different jewelry designs and innovations and how to obtain them to preserve the rights of the designer and to support the national economy.

3. Research aim:

The research aims to clarify the different methods of protection for the designs of metal jewelry to preserve the designer's intellectual property rights and support the national economy.

4. The Importance of Research:

- A. Clarifying the importance of protecting metal jewelry designs to preserve rights.
- B. Explaining the different methods of protection for preserving the intellectual property rights of jewelry designers.
- C. Directing designers to register and protect their designs to support the national economy.
- D. Protecting jewelry designs from theft, copying and imitation.

5. Research approach:

The research follows the inductive approach.

Second: concepts related to intellectual property

1. The concept and definition of intellectual property:

The analysis of protectable materials is considered one of the means of identifying the concepts of intellectual property. The prevailing traditional belief - which still exists until the present time - is limited to that industrial property relates to commercial and industrial businesses, while copyright is related to cultural aspects. According to this concept as well, inventions are fundamentally important under the scope of science, engineering, agriculture and industry, while trademark and the suppression of unfair competition are important for business management. In addition, musical, artistic, and literary works are protected by copyright protection laws that are of interest to artists, creators, and others working in these fields.

Modern technological development has changed this traditional distribution. Although copyright protection laws still provide protection to literary works, they extended to include the latest technical developments such as computer programs, brochures, and magazines, as well as works of design, drawing and photography, or sculpture and architecture, where these works deal with most of the forms of fine art protected by copyright laws and industrial designs.

Another way to analyze areas of intellectual property is to study the benefits provided by the various forms of protection, where intellectual property depends on two basic principles that constitute a benefit to society, namely, encouraging disclosure of new discoveries, and encouraging fair business practices.

Intellectual Property right is characterized by a set of characteristics that distinguish it from the rest of the rights granted by the civil right, as shown in Figure (1).

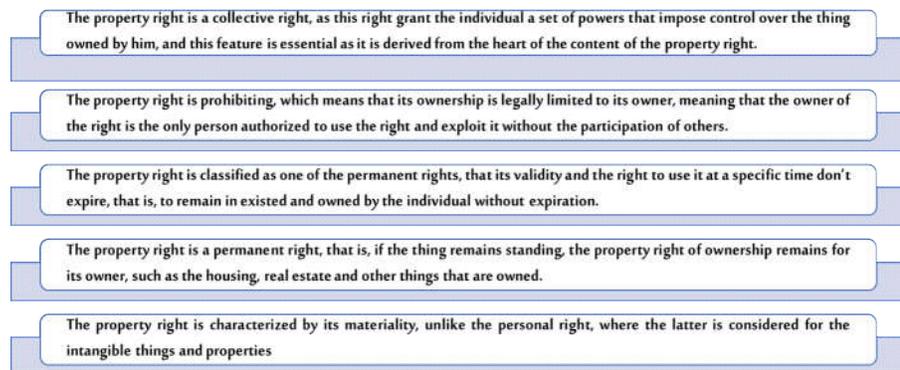


Figure (1) Characteristics of Intellectual Property

1-1. Definition of intellectual property:

Intellectual property Represents all products of human thoughts that constitute a group of creations, such as: books, inventions, trademarks, and industrial models. Intellectual property is defined as all mental creations of artistic and literary works, names used in commercial business, and other creative products that obtain legal protection.⁽⁵⁾

As shown in Figure (2), intellectual property refers to the creativity of the mind, including inventions, literary and artistic works, designs, logos, names, and images used in trading. Intellectual property is legally protected by rights, such as patents, copyright and trademarks that enable people to gain recognition or financial benefit from their innovation or creation. The intellectual property system aims, by establishing a proper balance between the interests of innovators and the interests of the public, to create an environment conducive to creativity and innovation flourishing.⁽⁶⁾

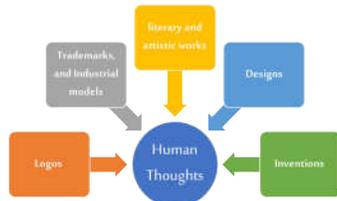


Figure (2) Intellectual property concept

1-2. The importance of intellectual property rights:

Intellectual property rights provide justice to the economic community, it is also an appropriate method to ensure that those who exert effort and work in intellectual innovation benefit from these efforts. Also, providing protection for intellectual property encourages many attempts to innovate and hence improves the growth and prosperity of the industries based on these innovations, as people see that these innovations generate a financial return.

The intellectual property system is a system designed to protect the intellectual achievements created by humans, not only at the national level but also outside the borders. Many innovative goods, thanks to intellectual property, enter the lands of other countries. However, if the intellectual property associated with these products is not protected in other countries, it may be counterfeited and imitated without any supervision or control, which will seriously harm the rights holders. In order to solve the problem of protecting intellectual property rights at the international level, countries conclude international treaties on intellectual property to harmonize and align their intellectual property systems as much as possible. As a driver of human creativity, intellectual property plays an important role in the economic and social progress.⁽⁷⁾

The first reason for the interest in protecting intellectual property is the desire to secure justice that allows anyone to spend effort and time in creating a work from which he can benefit financially. The second reason is that the protection granted to intellectual property encourages creators to innovate more, given the financial return of their work, and thus the industries and companies based on these innovations grow and flourish.⁽⁸⁾

1-3. Intellectual property and economic development:

The use of intellectual property concepts aims mainly to achieve economic development. Considering the commercial aspects, patents, copyrights, and other aspects of intellectual property are means through which creators and investors can recover their investment costs of time and money used to introduce new products that represent their innovations in markets. There is a strong correlation between the level of development of society and intellectual property resulted to participate by turn in changing this society and increasing the mutual influence between it and all sectors of society. We can say that

economic property is one of the main sources of economic power in the world, supported by an advanced economic structure. In addition to the increasing spending on research and development, all this in addition to other reasons have enabled the developed countries to have a competitive ability in this field. At the level of the general economy, intellectual property contributes to achieving economic development by encouraging national innovations and attracting foreign direct investment, which represents a major source of technology transfer. The figure (3) illustrates the importance of preserving intellectual property rights for society.



Figure (3) the importance of preserving intellectual property rights for society

1-4. Rights granted by intellectual property:

Providing protection to all intellectual property rights is one of the international human rights. Where Article 27 of the Declaration of Human Rights referred to the right to provide protection for the material and moral interests of individuals related to their artistic, literary, or scientific works. This protection depends on its importance associated with the human needs that seek innovation and creativity in different areas of life, as each of them contributes to enhancing cultural, economic, scientific, and technical development, and all of them help to improve the human life.⁽⁹⁾

There have been many types of violations that affected intellectual property rights, and they differ according to the nature of the rights it affects. The rights of authors, such as artistic and literary works, can be attacked and stolen by selling, renting, or publishing in ways that are not authorized by the owner of the works, but the rights related to trademarks, industrial designs, and inventions are attacked by illegally imitating or by pirating. All previous violations result in several economic damages and negatively affect intellectual property rights holders, societies and states in general. As explained in figure (4).

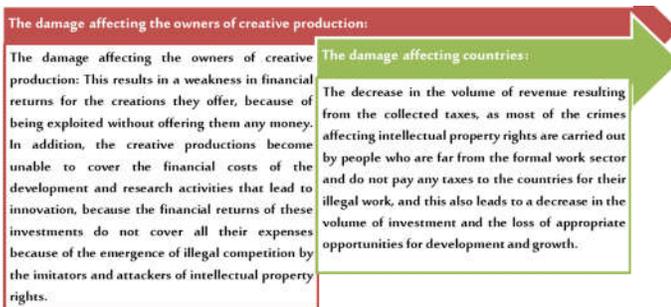


Figure (4) The impact of violations of intellectual property rights on creative production owners and countries

1-4-1. Intellectual property moral rights:

Although intellectual property is used as a mean of developing businesses, it does provide some moral rights. This concept is achieved mainly in the field of copyright, where authors have the right to exercise control over their works to prevent actions that may harm their names and reputation. These intangible rights include the right to attribute the work to the author or to prevent the work from being published in a name other than

the author’s real name, in addition to preventing modifications to some works that may harm the author’s reputation. In the field of patents and industrial property in general, basic moral rights are limited to the inventor's right to be mentioned on any patent application filed to preserve his moral right in his creative production.

1-4-2. Exclusive rights:

The exclusive right gives the inventor the right to decide who may - or may not - use the patented invention during the period of protection. What is meant by patent protection is that the invention cannot be manufactured, used, distributed, or sold for commercial purposes without the consent of the patent owner, and this applies to patents, utility models and registered industrial designs and models. These rights are granted for a specific period that varies according to the type of protection and the laws of the country to which it belongs, and after the end of the protection period the invention falls into the public domain and anyone can benefit from it or exploit it without referring to the patent owner, but the inventor's moral right remains valid.⁽¹⁰⁾

2. Intellectual property fields:

Intellectual property is one of the areas of law that deals with property rights related to intangible matters as well as providing means to support progress by protecting rights related to new mental creations and encourages legitimate commercial transactions. Intellectual property also serves to enhance the satisfaction of consumer needs, by enhancing some aspects of business practices, it also recognizes some intangible values related to mental and creative activities. Intellectual property is generally divided into two main parts, namely, industrial property, which includes patent laws, industrial designs, and plant varieties, as well as planning and designing electrical circuits and trademarks, while copyright and the related rights include written literary works, artistic works and related rights. As shown in figure (5).⁽¹¹⁾

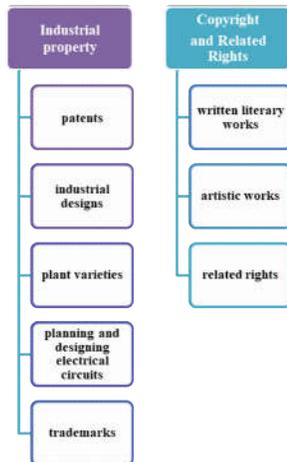


Figure (5) Intellectual property fields

2-1. Copyright:

Copyrights are related to literary and artistic creations, such as books, music, paintings, sculptures, cinematic works, magazines, and technology-related works such as computer programs and electronic databases. As for the term “copyright” includes the verb “copy” and it means“ copying”, that is, copying an original work, which is an act that literary and artistic creations may only take place by the author or with his permission. The term “copyright” refers to the creator of the artistic work, i.e., its author⁽¹²⁾

2-2. Industrial property:

Industrial property takes many forms, among these forms are patents for inventions and industrial designs, which are aesthetic innovations related to the appearance of industrial products (trademarks, service marks, designs of integrated circuits, names and trade designations, geographical indications, and protection against unfair competition)⁽¹³⁾

The protection in industrial property is in preventing the exploitation of this property by others without a license or permission from its owner. It is also directed against deceptive practices in general. Industrial property is taken in its broadest sense, as its application is not limited to industry and trade in its literal sense, but also to agricultural and extractive industries and to all manufactured or natural products.⁽¹⁴⁾

Industrial property can be classified into patents, utility models, industrial designs, and trademarks.

2-2-1. Patents:

A patent is an exclusive right granted to an invention in the form of a product or a process that generally provides a new way of doing something or offers a new technical solution to a problem. To obtain a patent, the technical information on the invention must be disclosed to the public in the patent application. The patent owner may authorize or license other parties to use the invention according to mutually agreed terms. The patent owner may also sell the right to the invention to another person, who then becomes the new owner of the patent or mortgage the patent, as the patent deals with the material thing that can be sold or mortgaged.⁽¹⁵⁾

Upon the expiration of the patent term, the protection ends, and the invention reverts to the public domain, and this means that the invention becomes available to others for commercial exploitation without infringing the patent. Patents may be granted for inventions in any field of technology, from everyday cooking utensils to nanotechnology chips. The invention could be a product, a manufacturing method, or a process. Patent protection is granted for a limited period, generally 20 years from the date of submitting the application. In order to obtain a patent for the product, it is required that it has a novelty and a creative step with industrial applicability, as shown in Fig (6).

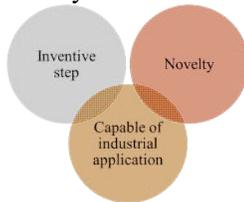


Figure (6) Conditions for a patent

2-2-2. Utility model:

The utility model is an exclusive right granted in relation to an invention and allows the right holder to prevent others from using the protected invention for commercial purposes without his permission within a limited period. It is like patent in its basic definition, and the utility model is sometimes referred to as a “small patent” or “innovation patent.” Where the creative step for patents shown in Figure (7) is in the technical features of the invention that should not be known to the expert in the field and cannot be guessed by reference to the art prior to the invention, and it is not obvious in the opinion of the average professional who is experienced in the field. Thus, the creative step should represent sufficient advance of the previous state of industrial technology, and in the event that the invention lacks the element of the creative step, it may not be protected by the patent law, and in this case it can be protected by the utility model law, as the conditions for protection by utility models lie in the availability of the element of novelty and industrial applicability without requiring the creative step of the invention, as

shown in Figure (8). The owner of a utility model patent enjoys the same rights as the patent owner, according to the different protection period, which ranges from 7-10 years.⁽¹⁶⁾

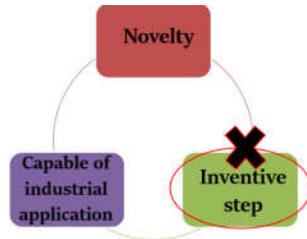


Figure (7) Inventive step

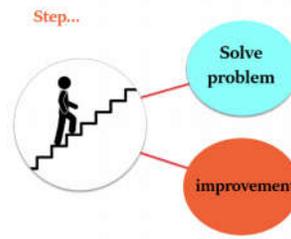


Figure (8) Conditions for utility model

2-2-3. Industrial designs:

Industrial design is the decorative or aesthetic appearance of a piece, and the design may consist of 3d elements, such as the shape or surface of the piece, or 2d elements, such as drawings, lines or colors. Figure (9) shows the design of a piece of metal jewelry protected by the Industrial Designs Law. Basically, the owner of the registered industrial design or the registered design patent has the right to prevent others from making, selling, or importing products bearing a design or embodying a design that is an image of the protected design. When undertaking this business for commercial purposes, the Industrial Design Act applies to a wide range of industry and handicraft products, from packaging and containers to furniture and household supplies, from lighting equipment to jewelry, and from electronic devices to textiles. The industrial designs also concern graphic symbols, user interfaces, and logos. Based on the concerned national law and the type of design, industrial designs may also be protected being works of art under copyright law.⁽¹⁷⁾



Figure (9) is an example of metal jewelry protected by the Industrial Designs Law⁽¹⁸⁾

Industrial design rights are granted for a specific period, and the period of industrial designs protection varies depending on the country, but it is not less than ten years. Many countries divide the total term of protection into successive renewable periods. The industrial design right protects only the apparent or aesthetic features of the product, while a patent protects an invention that provides a technical solution to a problem. Basically, an industrial design right does not protect the technical or functional features of a product, but these features can be protected by a patent.

Where industrial designs give the product magic and appeal in the eyes of customers, and the design guides the customer’s choice, as the appearance of the product can be a key factor in favoring the customer’s purchase decision. In other words, the success or failure of a product may depend at least in part on its appearance. Hence, industrial designs are extremely important for small and medium companies, even large companies, whatever the sector they work in. Figure (10) shows the main reasons for protecting industrial designs.

ROI	Protection contributes to maximizing the return on investments made to develop and market attractive and innovative products.
Exclusive rights	The protection provides exclusive rights for at least ten years in order to prevent others from commercially exploiting the industrial design or copying it.
Enhancing the commercial image	Industrial designs can be an important component of a company's business image. Protecting industrial designs contributes to protecting the company's commercial image.
Opportunity to license or sell	Protection provides rights that may be sold or licensed to another facility, so that it becomes a source of income for the rights owner.
Positive image	Protection conveys a positive image of the company, as industrial designs are commercial assets that may increase the market value of the company and its products.
Reward	Protecting industrial designs rewards and encourages innovation

Figure (10) the importance of industrial designs law

2-2-1. Trademark:

A trademark is a sign that distinguishes the goods or services of a company from the goods or services of other companies. Trademarks are protected by intellectual property laws. ⁽¹⁹⁾

In the application of the provisions of this Law, a trademark shall be the names that take a distinctive shape, signatures, words, letters, numbers, drawings, symbols, seals, bas-reliefs, or any other sign or any combination thereof that is perceptible by sight and is suitable for distinguishing industrial, commercial, artisanal or agricultural products, forest exploitation project or natural wealth, or to indicate that the thing the mark shall be placed on belongs to the owner of the mark for reasons of manufacture, selection, invention, or trade in it, or to indicate the performance of a service. The trademark must be distinctive and represent the identity of the product, and it must be new and perceptible in view. It must also be legitimate and not contrary to the public order. ⁽²⁰⁾

Fourth: the aesthetic value of jewelry

The term jewelry is usually used to refer to forms of personal adornment that are worn for the purpose of beautification. There are some basic categories of jewelry products such as decorative pins, rings, necklaces, bracelets, earrings, cufflinks, which are greatly varied as well as fashion along with personal and cultural preferences.

Designing and making jewelry is an art, a profession, and one of the oldest forms of civilizations dating back at least seven thousand years to the most ancient human societies. This art has taken many forms over the centuries, from simple stone beads to sophisticated metalwork and gem cutting known in the modern era. Where jewelry design concepts are usually presented followed by detailed art drawings created by a jewelry designer who is a professional trained in architectural and functional knowledge of materials, manufacturing techniques, configuration, dexterity, market trends. As shown in figure (11).

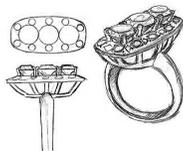


Figure (11) Jewelry design example. (Archie Martin: Archie Marting Design Handbook)

Once the design concepts and ideas for the metal jewelry piece are complete, the design is submitted and manufactured using the available basic materials. For example, the 24-karat gold was used in gold industry because finding it is easier than access to silver sources. Before the first century, many civilizations incorporated beads into jewelry, and once the discovery of various gemstones became available a transformation has occurred in the art of jewelry decoration and design, and in the framework of modern styles. Both enameling and polishing have become standard methods of creating adornments for proving wealth, position, or strength. Recent rapid advances in technology and machinery have allowed artists to make easier alternatives to some of the older styles. These developments have also changed the importance of jewelry and its social weight. There have been many changes in the design and function of jewelry since the beginning of the twentieth century, as traditional jewelry was considered sacred and expensive.

However, especially at the beginning of the 19th century, jewelry began to be questioned. Also, no jewelry design trend can be considered to belong to a specific date or period. During the twentieth century, jewelry design underwent radical and continuous changes: Modern Art (1900-1918), Art deco (1919-1929), International and Organic Style (1929-1946), New Look and Pop (1947-1967), globalization, materialism, and communism. Jewelry design trends were greatly influenced by the economic and social situations of the time. Jewelry designers tend to employ their designs and integrate technology and other functions of jewelry products, and not be satisfied with the aesthetic form and adornment only. Consequently, the forms of protection for metal jewelry, decorative accessories and costumes diversified and it became possible to protect metal jewelry designs as a metal product with a function / utility or benefit as a patent or utility model, and to protect works of jewelry displays (such as magazines for jewelry designs) by laws such as copyright.

1. Aesthetic value of jewelry in light of industrial drawings and models:

Jewelry design relates to drawings and the employment of artistic elements, motifs or natural shapes to build aesthetic values that form the jewelry, and as industrial designs are a combination of two-dimensional lines or colors or a three-dimensional shape that gives any industrial product or a traditional craft a special look, the drawings and designs of metal jewelry may be protected by the Industrial Designs Law, provided that it is not solely for a functional or technical purpose. The figure (12) shows the Japanese document No. D1615088 dated 7/9/2018 and registered as a design for a finger ring entitled “Finger ring”. It has been registered as an industrial model and published in WIPO Industrial Designs Database.



Figure (12) (Example of a ring protected as an industrial design.²¹)

1-1. The aesthetic value of metallic jewelry in light of the trademark law:

The trademark of metal jewelry can be protected by the trademark law, provided that the trademark is a single word or a combination of words, letters and numbers. It may consist of three-dimensional drawings, symbols, and signs, such as the shape and packaging of goods, or sound signs such as music, oral sounds, scents, or colors used as distinct features, there are -almost- no limits to the possibilities. The figure (13) shows an example of a Japanese trademark registered in the intellectual property database on 6/18/2010, and the figure (14) shows a Japanese trademark registered on 1/28/2016.



Figure (13) Japanese trademark registered with number T5409083 in the intellectual property database ⁽²²⁾



Figure (14) Japanese trademark registered with number T5409083 in the intellectual property database ⁽²³⁾

1-2. Protection of jewelry in light of copyright law:

Jewelry is a type of artistic and cultural expression in which heritage shapes can be used. Thus, it can be classified as one of the forms of folklore that expresses the traditional handicrafts that are displayed or even produced in place: Tools, clothing, jewelry, festival costumes, and accessories, performing arts and decorative arts, which are covered by copyright law.

In addition to the works of drawing, works of plastic art, architecture, decorative arts, artistic knitting, and the like, covered by copyright law, as well as brochures on jewelry designs.

Fifth: the utilitarian value of jewelry

The digital revolution has made a tremendous shift in human life because it is linked to information that is the backbone of all aspects of life. Recently, information and communication technology has witnessed rapid jumps and direct impacts on the human lifestyle, it also made many transformations at all levels and the social, economic, cultural, political, and other levels, and it was called digital. In the recent years, the concept of product design has changed with the rapid development of technology, and the increasing trend of integrating digital technology, materials and smart systems into the use products has led to a new type of product. New terms have emerged such as products and smart systems, and the term that include jewelry, interactive digital jewelry, and wearable technology appeared. Thus, there has been a shift in design research and design practices from a focus on traditional issues and usability to a focus on user interaction with the User-Product Interaction and the possibility of employing the concepts of digital technology and the interactive design in designing jewelry and opening new horizons that lead to different modern life applications and modernity. Figure (15) illustrates the evolution in the concept of jewelry design.

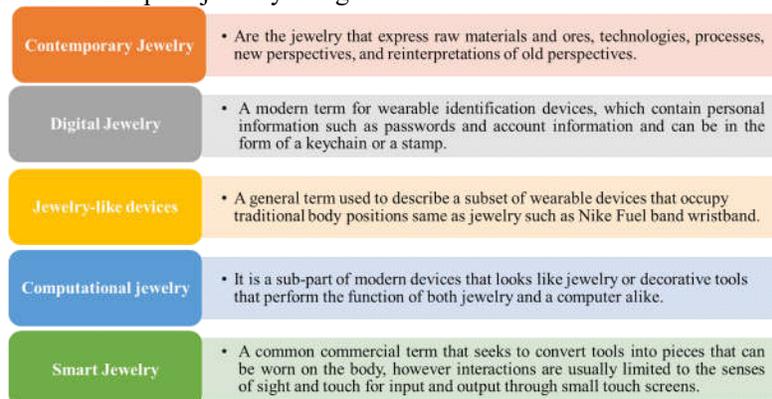


Figure (15) evolution in the concept of jewelry design

1. Digital jewelry:

Digital jewelry is one of the best products to include wearable technology due to its intimacy, its permanent proximity to the body, and the variety of its sizes. Digital jewelry opens up a new space for interaction design that allows us to explore the emotional aspects of our life and our sense of self. It is worth mentioning that the factor that makes jewelry interesting to exploration and analysis in the context of product and interactive design is the fact that it includes many aspects that have attracted a lot of attention in the recent period in the fields of interactive technology such as aspects related to aesthetics, materials, methods of processing, and cultural expressions. In addition, the way in which the design and construction of electronic wearable devices can be viewed through the lens of jewelry design, which can lead to the emergence of new trends of thinking about some concepts such as sustainability, which is highly relevant in the areas of interactive and product design. Through the combination of the concept of jewelry and digital technologies, both the practice of contemporary jewelry and the exploration of alternatives to traditional applications of technology in people's lives can be promoted. The perception of digital jewelry and the process of hiding technology behind modern jewelry is a promising trend in the world of wearable technology. The fact that jewelry is worn close to the body within the limits of the personal space of the wearer gives it a certain level of intimacy, which is likely not present in the other tools or devices that the user has. The term digital jewelry has been introduced as a trend that can overcome the problem of abandoning wearable devices and increase their acceptance among community members in the long run, as this term describes the seamless integration of technology into contemporary jewelry. Digital jewelry gained great interest among potential users and market researchers, as wearable technology will increasingly be hidden behind stylish, modern designs for jewelry, which will have a greater appeal than the advanced technological devices present in the current market.

2. Utilitarian value of metal jewelry in light of patent and utility model law:

Since patent law relates to the protection of products that have utility or function, it can include types of functional jewelry such as digital jewelry or wearable jewelry, as well as other types of modern jewelry products or accessories. Provided that the conditions for patent protection are met, which are novelty and creative step with industrial applicability. If the creative step of the metal jewelry product is lost, it can be protected by the utility model patent law, provided that the novelty and creative step are present.

The patent on jewelry products is not limited to the innovative design of the product as an invention, but also the method of making jewelry can be protected if it fulfills the conditions for granting a patent from a new, innovative manufacturing technology that has not been previously discovered, such as a new method of casting metal jewelry. Also, the patent in jewelry products is not limited to the innovative design of the product as an invention, but the method of manufacturing jewelry can be protected if the conditions for granting a patent are met by a new innovative technology for manufacturing that has not been previously discovered, such as a new method for casting metal jewelry. If people of experience in the field have access to the same manufacturing technology, it can be protected as a mini patent by the utility model protection law. Thus, jewelry design opens new areas in society for innovation and investment in light of patent law and utility models. Figure (16) shows a Chinese document dated February 20, 2016, which relates to a hinged metal bracelet for a watch or a piece of jewelry that includes links with side pieces and central links connected to each other through pins or screws, which was published on the World Intellectual Property Organization (WIPO) database.

Mosaics

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Watch band or **jewellery** bracelet

Page bookmark: CN108201202 (A) - Watch band or jewellery bracelet

Inventor(s): YANN LEIGGENER ±

Applicant(s): MONTRES JAQUET DROZ SA ±

Classification: - international: **A44C11/00; A44C5/10**
 - cooperative: **A44C11/00 (CN); A44C5/107 (EP_CN_US); A44C5/0061 (EP_US)**

Application number: CN201711373454.20171219 ● Global Dossier

Priority number(s): EP20160205514.20161220

Also published as: CN108201202 (B); EP3338588 (A1); EP3338588 (B1); HK1255064 (A1); JP2018099511 (A); → more

Abstract of CN108201202 (A)

Translate this text into

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The invention relates to a hinged bracelet (10), for a watch (100) or piece of **jewellery** (200), comprising an alternation of H-shaped links (11) comprising side pieces (14) forming the side ends of this bracelet (10), and central links (12), hinged to each other by arbors (13) formed by pins or screws, wherein at least one central link is a decorated link (1) comprising a removable surface shell (3) arranged to be placed on a base (2) which includes at least a first guide member (21) and a second guide member (22) both substantially of revolution respectively about a first axis (D1) and a second axis (D2) parallel to and distinct from one another, and arranged to receive these arbors (13), and the surface shell of each decorated link is surrounded and protected on either side of its width by the side pieces of the H-shaped links.

Figure (16) A Chinese document of a metal bracelet for a watch registered in Wipo database ⁽²⁴⁾

3. International classification of jewelry in the patent system:

The International Patent Classification provides a hierarchical system of non-linguistic symbols for classifying patents and utility models according to the various fields of technology associated with them. The classification divides technology into eight sections, consisting of approximately 70,000 subsections, and each subsection contains a symbol consisting of Arabic numerals and Latin letters. This classification is indispensable for recalling patent documents when searching the “Prior industrial technology”. The entities that need this recall are the departments in charge of issuing patents, individual inventors, research and development units, and anyone interested in implementing or developing technology. To keep pace with developments, the IPC is constantly being revised and a new version is issued regularly. The previous and current originals of the classification can be found in English and French. Translations of this classification are also prepared for publication in other languages. For example, this classification is available in the following languages on the internet through the language “navigation” function: Chinese, Czech, Dutch, Estonian, German, Japanese, Korean, Polish, Portuguese (Brazil), Russian, Serbian, Slovak and Spanish. Figure (17) shows the international classification of jewelry according to Wipo.

A	HUMAN NECESSITIES
	PERSONAL OR DOMESTIC ARTICLES
A44	HABERDASHERY; JEWELLERY
A44C	JEWELLERY; BRACELETS; OTHER PERSONAL ADORNMENTS; COINS
A44C 1/00	Brooches or clips in their decorative or ornamental aspect [2006.01]
A44C 3/00	Medals; Badges [2006.01]
A44C 5/00	Bracelets; Wrist-watch straps; Fastenings for bracelets or wrist-watch straps [2006.01]
A44C 7/00	Ear-rings; Devices for piercing the ear-lobes [2006.01]
A44C 9/00	Finger-rings [2006.01]
A44C 11/00	Watch chains; Ornamental chains [2006.01]
A44C 13/00	Connectible jewellery [2006.01]
A44C 15/00	Other forms of jewellery [2006.01]
A44C 17/00	Gems or the like [2006.01]
A44C 17/02	- Settings for holding gems [2006.01]
A44C 17/04	- Setting gems in jewellery; Setting-tools [2006.01]
A44C 19/00	Devices for preventing pilfering of watches or jewellery [2006.01]
A44C 21/00	Coins (coins specially adapted to operate coin-free mechanisms G07F 1/06); Emergency money; Beer or gambling coins or tokens, or the like [2006.01]
A44C 23/00	Rosaries [2006.01]
A44C 25/00	Fancy ware for personal wear, not provided for in groups A44C 1/00-A44C 19/00 or A44C 23/00, e.g. crosses, crucifixes, charms [2006.01]
A44C 27/00	Making jewellery or other personal adornments [2006.01]

Figure (17) International Classification of Jewelry according to Wipo ⁽²⁵⁾

Fifth: Search results

1. Intellectual property rights for metal jewelry can be protected by copyright law if it is considered a form of heritage art, cultural expression, or folklore.
2. Intellectual property rights can be protected for metal jewelry design as works expressing painting, plastic art, and decorative arts.
3. Intellectual property rights can protect metal jewelry as a product with a function of patent law, if novelty, creative plan, and industrial applicability are available.
4. The rights of metal jewelry as a product with a function or utility can be protected by the utility model law if the two elements of novelty and industrial applicability are available without requiring an innovative step in the design.
5. Jewelry design rights may be reserved under the Industrial Designs and Models Law if it is not solely for a functional or technical purpose.
6. Trademark rights for jewelry products can be preserved under the trademark law.

Table (1) shows the elements that are required to be available in jewelry so that it can be protected by various intellectual property laws:

Type of protection	Grant conditions	Grant period
Industrial designs	The model is new and has features that distinguish it from known industrial models.	Not less than 10 years according to the law of each country
Patent	1. The invention is new. 2. That the invention includes the creative step. 3. That the invention is industrially applicable.	20 years from the date of filing the patent application
Utility model	1. The invention is new. 2. That the invention is industrially applicable.	It varies from country to other, but ranges from 7-10 years from the date of filing the application
Copyright	1. According to the Berne Convention, copyright protection is acquired automatically without the need for registration. 2. The author may waive his financial right, but the moral rights of the owner remain, and they shall not be extinguished by granting the right to exploit the work in any way	According to the Berne Convention, protection is for the life of the author and extends to 50 years after death
Trademark	1. The trademark should be distinguished. 2. To be perceptible 3. The trademark is new. 4. The trademark should not be in violation of public order and public morals	10 years renewable

Sixth :Conclusion

The publication and availability of metal jewelry designs on websites with the aim of marketing them has led to the exploitation and imitation of designs and the introduction of these counterfeit products on the market; thus, losing the rights of designers and companies and negatively affecting their investments which in turn affect the national economy. This required the search for an appropriate system to support jewelry designers to preserve their moral and material rights and to prevent imitation or fraud. Intellectual property laws provide protection for the rights of designers and inventors from infringement of some on their inventions without prior permission, in addition to the moral rights of the inventor / designer. It also gives them the exclusive right that allows a person to use the intellectual property right without obtaining a permission from the right holder or without the existence of a legal reason, which allows the creator or owner to benefit from his work and investment, thus encouraging the establishment of local industries and foreign investments while protecting the product from theft and copying and limiting the proliferation of counterfeit and copied works.

The rapid technological development resulting from the digital revolution related to

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information and communication technology in the recent years has brought about many transformations at all levels: social, economic, cultural, political, and others, which includes the design of metal jewelry. Jewelry designers tend to change the concepts of jewelry design to include new jobs and the integration of digital technology, materials and smart systems to keep pace with this development and to achieve more innovation. Consequently, the Industrial Design Law is no longer sufficient to include these innovative new artistic features in the designs and products of metal jewelry.

Therefore, it became a necessity to direct designers to protect their designs and innovations and to understand the various protection laws to protect these designs and innovations and the advantages of this protection.

Seventh: Discussion

This research aims to identify the types of jewelry and the possibility of keeping the rights of the designer for those designs. It is common for jewelry designers to only protect the shape of jewelry, which is protected by the Industrial design law within the well-known legal and regulatory framework of intellectual property. Despite the fact that jewelry designs have evolved more than just a shape for decoration, they can be used as functional or digital jewelry, as well as wearable technology. Thus, based on the research, intellectual property laws were presented and discussed, the protection conditions for each law were determined and then jewelry types were classified and analyzed based on each law's conditions. As a result, the study determined the protectability of jewelry designs according to each intellectual property law.

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