



DEPARTMENT OF COMMERCE

Patent and Trademark Office

[Docket No. PTO-C-2020-0068]

The Article of Manufacture Requirement

AGENCY: Patent and Trademark Office, Department of Commerce.

ACTION: Request for information.

SUMMARY: The United States Patent and Trademark Office (USPTO) seeks public input on whether its interpretation of the *article of manufacture* requirement in the United States Code should be revised to protect digital designs that encompass new and emerging technologies.

DATES: Comments must be received by 5 p.m. EST on [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*].

ADDRESSES: You may submit comments and responses to the questions below by one of the following methods:

- a) **Electronic Submissions:** Comments can be submitted through the Federal eRulemaking Portal at www.regulations.gov. To submit comments via the portal, enter docket number **PTO-C-2020-0068** on the home page and click “search.” The site will provide a search results page listing all documents associated with this docket. Find a reference to this notice and click on the “Comment Now!” icon, complete the required fields, and enter or attach your comments. Attachments to electronic comments will be accepted in ADOBE® portable document format or MICROSOFT WORD® format. Because comments will be made available for public inspection, information that the submitter does not desire to make public, such as an address or phone number, should not be included.

b) Written/Paper Submissions: Send all written/paper submissions to: Mail Stop OPIA, United States Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22314, ATTN: Elizabeth Shaw. Submission packaging should clearly indicate that materials are responsive to Docket No. PTO-C-2020-0068, Office of Policy and International Affairs, Comment Request: Article of Manufacture Requirement of 35 U.S.C. 171. Although comments may be submitted by postal mail, electronic submissions are encouraged.

Submissions of Business Confidential Information: Any submissions containing business confidential information must be delivered in a sealed envelope marked “confidential treatment requested” to the address listed above. Submitters should provide an index listing the document(s) or information that they would like the Department of Commerce to withhold. The index should include information such as numbers used to identify the relevant document(s) or information, document title and description, and relevant page numbers and/or section numbers within a document. Submitters should provide a statement explaining their grounds for objecting to the disclosure of the information to the public as well. The USPTO also requests that submitters of business confidential information include a non-confidential version (either redacted or summarized) that will be available for public viewing and posted on <https://www.regulations.gov>. In the event that the submitter cannot provide a non-confidential version of its submission, the USPTO requests that the submitter post a notice in the docket stating that it has provided the USPTO with business confidential information. Should a submitter either fail to docket a non-confidential version of its submission or to post a notice that business confidential information has been provided, the USPTO will note the receipt of the submission on the docket with the submitter’s organization or name (to the degree permitted by law) and the date of submission.

FOR FURTHER INFORMATION CONTACT: Elizabeth Shaw, USPTO, Office of Policy and International Affairs, at Elizabeth.Shaw2@uspto.gov or 571-272-9300. Please direct media inquiries to the USPTO’s Office of the Chief Communications Officer at 571-272-8400.

SUPPLEMENTARY INFORMATION:

Background

Section 171 of title 35 United States Code, provides that “[w]hoever invents any new, original and ornamental design *for an article of manufacture* may obtain a patent therefor” (emphasis added). To satisfy the requirement that the design must be for an article of manufacture, applicants have been required to show the design as applied to or embodied in an article of manufacture.¹

The USPTO considers designs for computer-generated icons embodied in articles of manufacture to be statutory subject matter eligible for design patent protection under section 171.² For example, a claim for a computer-generated icon that is integral to the operation of the computer and that is shown on a computer screen, monitor, or other display panel complies with the article of manufacture requirement.³

Because certain new and emerging technologies, such as projections, holographic imagery, or virtual/augmented reality do not require a physical display screen or other tangible article to be viewable, the USPTO is exploring whether its practice should be revised to protect such digital designs.

¹ *Curver Luxembourg, SARL v. Home Expressions Inc.*, 938 F.3d 1334, 1337 (Fed. Cir. 2019) (confirming that “long-standing precedent, unchallenged regulation, and agency practice all consistently support the view that design patents are granted only for a design applied to an article of manufacture, and not a design *per se*”); Manual of Patent Examining Procedure (MPEP) 1504.01.

² MPEP 1504.01(a)(I)(A). Note that a computer-generated icon is considered to be integral to the operation of a computer. *See Ex parte Strijland*, 26 U.S.P.Q.2d 1259, *4-5 (B.P.A.I. 1992).

³ MPEP 1504.01(a)(I)(A).

Although current jurisprudence has not addressed whether a digital design not applied to or embodied in a physical article is eligible for design patent protection, the following section outlines current law and practice regarding the article of manufacture requirement.

35 U.S.C. 171—Patents for Designs

The language “new, original and ornamental design for an article of manufacture” set forth in section 171 has been interpreted by the courts to include at least three kinds of designs:

(A) a design for an ornament, impression, print, or picture applied to or embodied in an article of manufacture (surface indicia);

(B) a design for the shape or configuration of an article of manufacture; and

(C) a combination of the first two categories.⁴

A patentable design “gives a peculiar or distinctive appearance to the manufacture, or article to which it may be applied, or to which it gives form.”⁵

Defining Article of Manufacture

⁴ *Samsung Electronics Co. v. Apple Inc.*, 137 S. Ct. 429, 435 n.3 (2016) (explaining the legislative history behind the “article of manufacture” requirement in section 171, “[a]s originally enacted, the provision protected ‘any new and original design for a manufacture.’ [sec] 3, 5 Stat. 544. The provision listed examples, including a design ‘worked into or worked on, or printed or painted or cast or otherwise fixed on, any article of manufacture’ and a ‘shape or configuration of any article of manufacture.’ *Ibid.* A streamlined version enacted in 1902 protected ‘any new, original, and ornamental design for an article of manufacture.’ Ch. 783, 32 Stat. 193. The Patent Act of 1952 retained that language. *See* [sec] 171, 66 Stat. 813.”); *In re Schnell*, 46 F.2d 203, 209 (C.C.P.A. 1931); MPEP 1504.01.

⁵ *Samsung Electronics Co. v. Apple Inc.*, 137 S. Ct. 429, 432 (2016) (citing *Gorham Co. v. White*, 81 U.S. 511, 525 (1871)).

The 2016 decision by the Supreme Court in *Samsung Electronics Co. v. Apple Inc.* is instructive on the “article of manufacture” requirement of section 171.⁶ In that decision, the Court analyzed the term “article of manufacture” under 35 U.S.C. 289, a provision that provides additional remedy for infringement of a design patent. It found that the term “article of manufacture” has a broad meaning, and as used in section 289, encompasses both a product sold to a consumer and a component of that product.⁷ The Court found that an “article” is just “a particular thing,” and “manufacture” means “the conversion of raw materials by the hand, or by machinery, into articles suitable for the use of man” and “the articles so made,” and concluded that an “article of manufacture” is “simply a thing made by hand or machine.”⁸ Moreover, the Court confirmed that its definition of “article of manufacture” comported with 35 U.S.C. 171 and 101, specifically noting that “‘article of manufacture’ in [section] 171 includes ‘what would be considered a ‘manufacture’ within the meaning of [s]ection 101.’”⁹

A Picture Alone Is Not Eligible for Design Patent Protection

⁶ *Samsung Electronics Co. v. Apple Inc.*, 137 S. Ct. 429 (2016).

⁷ *Id.* at 436.

⁸ *Id.* at 434-435 (for “article,” citing J. Stormonth, *A Dictionary of the English Language* 53 (1885) and *American Heritage Dictionary*, at 101 (“[a]n individual thing or element of a class; a particular object or item”)); *id.* at 435 (for “manufacture,” citing Stormonth, at 589 and *American Heritage Dictionary*, at 1070 (“[t]he act, craft, or process of manufacturing products, especially on a large scale” or “[a] product that is manufactured”)).

⁹ *Id.* at 435 (quoting 8 D. Chisum, *Patents* 23.03[2], pp. 23-12 to 23-13 (2014)); see also *In re Nuijten*, 500 F.3d 1346, 1356 (Fed. Cir. 2007) (determining that the Supreme Court’s “definitions address ‘articles’ of ‘manufacture’ as being tangible articles or commodities,” and thus concluding that “[a] transient electric or electromagnetic transmission does not fit within that definition” because during transmission, “energy embodying the claimed signal is fleeting and is devoid of any semblance of permanence,” and does not meet the definitions of “articles” of “manufacture”). Indeed, the *Nuijten* court noted the Supreme Court had defined “manufacture” in the context of utility patents as “the production of *articles* for use from raw or prepared materials by giving to these materials new forms, qualities, properties, or combinations, whether by hand-labor or by machinery.” 500 F.3d at 1356 (quoting *Diamond v. Chakrabarty*, 447 U.S. 303, 308 (1980)). Note that this definition is similar to the ones for “article,” “manufacture,” and “article of manufacture” espoused by the Supreme Court in *Samsung* as applied to design patents.

Historically, a picture standing alone is not patentable under section 171.¹⁰ The factor that distinguishes statutory design subject matter from a mere picture or ornamentation has been the embodiment of the design in an article of manufacture.¹¹ For this reason, the USPTO has required that the design must be shown as applied to or embodied in an article of manufacture.¹²

Guidelines for Computer-Generated Icons and Type Fonts

In 1995, the USPTO introduced examination guidelines for design patent applications claiming computer-generated icons.¹³ These guidelines are based on the USPTO's understanding of the case law and the USPTO Appeal Board's decision in 1992 in *Ex parte Strijland* regarding a "design for an information icon for the display screen of a programmed computer system."¹⁴ To be eligible for protection, the USPTO currently requires that a design for a computer-generated icon be: 1) embodied in a computer screen, monitor, other display panel, or portion thereof; 2)

¹⁰ *Curver Luxembourg, SARL v. Home Expressions Inc.*, 938 F.3d 1334, 1340 (2019) (quoting *Gorham v. White*, 81 U.S. 511, 524-25 (1871) for this proposition). In *Gorham*, the Court discussed the reach of design protection as follows: "The acts of Congress which authorize the grant of patents for designs were plainly intended to give encouragement to the decorative arts. They contemplate not so much utility as appearance, and that, *not an abstract impression, or picture*, but an aspect given to those objects mentioned in the acts" 81 U.S. at 524-25 (emphasis added). See also MPEP 1504.01.

¹¹ MPEP 1504.01. see also *Ex parte Strijland*, 26 U.S.P.Q.2d 1259, *4-5 (B.P.A.I. 1992).

¹² MPEP 1504.01. see also *supra* note 5; *Samsung*, 137 S. Ct. at 435 (citing *Application of Zahn*, 617 F.2d 261, 268 (C.C.P.A. 1980) ("Section 171 authorizes patents on ornamental designs for articles of manufacture. While the design must be embodied in some articles, the statute is not limited to designs for complete articles, or 'discrete' articles, and certainly not to articles separately sold ..."); *Curver Luxembourg, SARL v. Home Expressions Inc.*, 938 F.3d 1334, 1340 (2019) (affirming this principle by relying on *In re Schnell*, 46 F.2d 203, 209 (C.C.P.A. 1931) ("[I]t is the *application of the design to an article of manufacture* that Congress wishes to promote, and an applicant has not reduced his invention to practice and has been of little help to the art if he does not teach the manner of applying his design."), and *Ex Parte Cady*, 232 O.G. 619, 621-22 (Comm'r Pat. 1916) ("[a] disembodied design or a mere picture is not the subject of [design] patent").

¹³ MPEP 1504.01(a)(I).

¹⁴ *Ex parte Strijland*, 26 U.S.P.Q.2d 1259 (B.P.A.I. 1992).

more than a mere picture on a screen; and 3) integral to the operation of the computer displaying the design.¹⁵

The guidance with respect to type fonts is different.¹⁶ Examiners are instructed not to reject claims for type fonts under section 171 for failure to comply with the “article of manufacture” requirement on the basis that more modern methods of computer-generated fonts do not require physical printing blocks.¹⁷

Absence of Precedent Directly Addressing New Technologies

Recent technological advances have allowed the development of designs that are not applied to or embodied in a physical product but can perform a utilitarian function, such as controlling electronic devices rather than just serving as merely a displayed picture. Examples include virtual laser keyboards used in receiving key strokes and hand movements as inputs and projected images for an automobile or for augmented and virtual reality applications. The USPTO is not aware of any judicial decision that addresses whether a claimed design that lacks a static “physical form” but is used as an integral part of the function of a digital product satisfies section 171.

¹⁵ MPEP 1504.01(a)(I)(A); *Ex parte Strijland*, 26 U.S.P.Q.2d 1259, at *4-5 (B.P.A.I. 1992). Furthermore, section 1504.01(a)(I)(A) of the MPEP applies the holding in *In re Hruby*, 373 F.2d 997 (C.C.P.A. 1967) to icons, noting that “the dependence of a computer-generated icon on a central processing unit and computer program for its existence itself is not a reason for holding that the design is not for an article of manufacture.” However, section 1504.01(a)(IV) explains that computer-generated icons that include “images that change appearance during viewing” may be eligible for design patent protection, but “no ornamental aspects are attributed to the process or period in which one image changes into another.”

¹⁶ MPEP 1504.01(a)(III).

¹⁷ *Id.* Traditionally, type fonts have been generated by solid blocks from which each letter or symbol was produced. Consequently, the USPTO has historically granted design patents drawn to type fonts. USPTO personnel should not reject claims for type fonts under 35 U.S.C. 171 for failure to comply with the “article of manufacture” requirement on the basis that more modern methods of typesetting, including computer generation, do not require solid printing blocks.

Other jurisdictions have updated their laws and practices to accommodate design protection for new technologies. For example, Singapore modified its law to eliminate a requirement that a design must be applied to a physical article in order to be protected. Its law now provides protection for both non-animated and animated graphical user interface (GUI) designs that are applied to an article or a “non-physical product.”¹⁸ In defining a “non-physical product,” Singapore law recognizes “anything that (a) does not have a physical form; (b) is produced by the projection of a design on a surface or into a medium (including air); and (c) has an intrinsic utilitarian function that is not merely to portray the appearance of the thing or to convey information.”¹⁹ Likewise, Japan modified its law to broaden the scope of subject matter for design protection to include digital images that are not displayed on an article, such as graphic designs viewed or provided through a computer network and projected images,²⁰ including images on screen, and images appearing through virtual and augmented reality.²¹

In addition, there have been discussions at the World Intellectual Property Organization (WIPO) about design protection for new technologies, and a summary of a WIPO questionnaire on the matter included the following observation:

The majority of responding jurisdictions do not require a link between a GUI/icon design and an article as a prerequisite for registration. This is mainly because of the nature of new technological designs, which may be used in different articles/environments. In most of these jurisdictions, the indication of an article is optional. In all of them, a patent design/design registration can be obtained for a

¹⁸ See Intellectual Property Office of Singapore, Practice Direction No. 4 of 2018 (June 20, 2018); *cf.* Intellectual Property Office of Singapore, Practice Direction No. 4 of 2014 (Dec. 10, 2014).

¹⁹ *Id.*

²⁰ See Ministry of Economy, Trade and Industry (METI), Cabinet Decision on the Bill for the Act of Partial Revision of the Patent Act (Mar. 1, 2019), https://www.meti.go.jp/english/press/2019/0301_003.html (last visited July 16, 2019).

²¹ *Id.*

GUI/icon design per se if it is represented alone. In most of them, the patent design/design registration covers the use of the claimed GUI/icon design in any article/environment.²²

Topics for Public Comment

The public is invited to submit comments on any topics related to 35 U.S.C. 171 that they deem relevant. The USPTO is particularly interested in receiving views and comments on the questions presented below. The tenor and substance of the questions should not be taken as an indication that the USPTO is predisposed to any particular views, positions, or actions. The USPTO also invites the public to share their views and insights on other aspects of section 171 that are not addressed in the questions.

To be eligible for patent protection, a design must comply with the “article of manufacture” requirement of section 171. The USPTO has interpreted the jurisprudence to require that designs for computer-generated icons meet the following criteria: 1) they must be embodied in a computer screen, monitor, other display panel, or portion thereof; 2) they must be more than a mere picture on a screen; and 3) they must be integral to the operation of the computer displaying the design. Some stakeholders have expressed that they are unable to obtain design protection for certain new and emerging technologies (e.g., projections, holographic imagery, and virtual/augmented reality) because they do not meet the current criteria.

1. Please identify the types of designs associated with new and emerging technologies that are not currently eligible for design patent protection but that you believe should be eligible. For these types of designs, please explain why these designs should be eligible,

²² WIPO, Analysis of the Returns to the Second Questionnaire on Graphical User Interface (GUI), Icon and Typeface/Type Font Designs, SCT/43/2, Feb. 5, 2020, at 37, available at https://www.wipo.int/edocs/mdocs/sct/en/sct_43/sct_43_2.pdf.

how these designs satisfy the requirements of section 171, and how these designs differ from a mere picture or abstract design. In addition, if you believe that these types of designs should be eligible, but a statutory change is necessary, please explain the basis for that view.

2. If the projection, holographic imagery, or virtual/augmented reality is not displayed on a computer screen, monitor, or other display panel but is integral to the operation of a device (e.g., a virtual keyboard that provides input to a computer), is this sufficient to render the design eligible under section 171 in view of the current jurisprudence? If so, please explain how the article of manufacture requirement is satisfied and how these designs differ from a mere picture or abstract design. If you believe that these designs do not meet the requirements of section 171, please explain the basis for that view.
3. If the projection, holographic imagery, or virtual/augmented reality is not displayed on a computer screen, monitor, or other display panel but is interactive with a user or device (e.g., a hologram moves according to a person's movement), is this sufficient to render a design eligible under section 171 in view of the current jurisprudence? If so, please explain how the article of manufacture requirement is satisfied and how these designs differ from a mere picture or abstract design. If you believe that these designs do not meet the requirements of section 171, please explain the basis for that view.
4. If the projection, holographic imagery, or image appearing through virtual/augmented reality is not displayed on a computer screen, monitor, or other display panel but is projected onto a surface or into a medium (including air) and is not otherwise integral to the operation of a device or interactive with a user or device (e.g., is a static image), is this sufficient to render a design eligible under section 171 in view of the current

jurisprudence? If so, please explain how the article of manufacture requirement is satisfied and how these designs differ from a mere picture or abstract design. If you believe that these designs do not meet the requirements of section 171, please explain the basis for that view.

5. Do you support a change in interpretation of the article of manufacture requirement in 35 U.S.C. 171? If so, please explain the changes you propose and your reasons for those proposed changes. If not, please explain why you do not support a change in interpretation.
6. Please provide any additional comments you may have in relation to section 171, interpretation or application of section 171, or industrial design rights in digital and new and emerging technologies.

Andrei Iancu,

Under Secretary of Commerce for Intellectual Property and Director of the United States Patent and Trademark Office.

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