



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
**United States Patent and Trademark Office**  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/598,544	08/29/2012	Young Harvill	352432-991201	9255
26379	7590	01/22/2020	EXAMINER	
DLA PIPER LLP (US ) 2000 UNIVERSITY AVENUE EAST PALO ALTO, CA 94303-2248			WOOD, ALLISON G	
			ART UNIT	PAPER NUMBER
			3625	
			NOTIFICATION DATE	DELIVERY MODE
			01/22/2020	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PatentDocketingUS-PaloAlto@dlapiper.com

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE PATENT TRIAL AND APPEAL BOARD

---

*Ex parte* YOUNG HARVILL and ROBERT I. BEAVER III<sup>1</sup>

---

Appeal 2019-003707  
Application 13/598,544  
Technology Center 3600

---

Before ERIC B. GRIMES, RICHARD M. LEBOVITZ, and  
TAWEN CHANG, *Administrative Patent Judges*.

GRIMES, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134(a) involving claims relating to a product-customizing system and method, which have been rejected as anticipated, obvious, and directed to patent-ineligible subject matter. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

STATEMENT OF THE CASE

The Specification states that a “wide variety of customizable, manufactured products may be partially described as vector patterns which

---

<sup>1</sup> Appellant identifies the real party in interest as Zazzle, Inc. Appeal Br. 1. We use the word Appellant to refer to “applicant” as defined in 37 C.F.R. § 1.42(a).

map areas of printing, decoration, embellishment, or material selection to the physical manufactured product, these customizable areas may be called Design Areas.” Spec. 1:23–25. However, a “complete description of the mapping of design areas to product is often impractical or difficult to obtain from manufacturers.” *Id.* at 1:26 to 2:1. For example, a product that is assembled from separate pieces can make mapping difficult. *Id.* at 2:1–7.

The Specification discloses “a system and method . . . for acquisition, characterization, and application of Manufacturing patterns to the automated production of the digital representation of these patterns as interactive media that gathers a customer’s input, and subsequent production of physical products.” *Id.* at 2:8–11.

Claims 1–3, 5–8, and 10 are on appeal. Claim 6, reproduced below, is illustrative:

6. A method for acquisition, characterization, and application of one or more manufacturing patterns to the automated production of the digital representation of these patterns for a product, the method comprising:

automatically transmitting, using a computer having a processor that has a manufacturing unit, a set of design area markups to a manufacturer that returns a reference product with markups to the manufacturing unit;

generating, by the manufacturing unit, based on the one or more manufacturing patterns, one or more interactive assets for the product about the manufacturing of the product;

using, by the manufacturing unit, the one or more interactive assets to allow a user to interactively customize the product;

displaying an image of the user customized product to the user; and

transmitting, by the manufacturing unit, one of the one or more interactive assets to the manufacturer that produces the customized product.

Claim 1 is the other independent claim, and is directed to a system that comprises a computer and carries out the steps recited in claim 6.

The claims stand rejected as follows:

Claims 1–3, 5–8, and 10 under 35 U.S.C. § 101 as being directed to patent-ineligible subject matter (Final Action<sup>2</sup> 12, Ans. 3);

Claims 1–3, 5–8, and 10 under 35 U.S.C. § 102(e) as anticipated by Yankton<sup>3</sup> (Final Action 17); and

Claims 1–3, 5–8, and 10 under 35 U.S.C. § 103(a) as obvious based on Yankton and Nykamp<sup>4</sup> (Final Action 17).

## OPINION

### *Patent Eligibility*

Claims 1–3, 5–8, and 10 stand rejected under 35 U.S.C. § 101 as being directed to an abstract idea without significantly more. Ans. 3.<sup>5</sup> The Examiner finds that the claims are directed to the “abstract idea of customizing products.” *Id.* at 4. The Examiner reasons that “[t]his concept is considered to be a certain method of organizing human activity because it relates to commercial or legal interactions such as sales activities or

---

<sup>2</sup> Office Action mailed Dec. 7, 2017.

<sup>3</sup> Yankton, US 2008/0147512 A1, published June 19, 2008.

<sup>4</sup> Nykamp, US 2005/0251462 A1, published Nov. 10, 2005.

<sup>5</sup> The claims were also rejected under 35 U.S.C. § 101 in the Final Office Action but the Examiner modified the rejection in the Answer to comply with the examination guidance issued January 7, 2019. Ans. 3.

behaviors since allowing a user to customize a product and view customizations of a product is a sales activity or behavior.” *Id.*

The Examiner finds that “claims 1 and 6 recite the additional elements of a computer having a processor that has a manufacturing unit wherein the manufacturing unit generates, uses, and transmits information regarding interactive assets.” *Id.* at 5. The Examiner concludes, however, that the additional elements do not integrate the abstract idea into a practical application, because they “merely amount to an instruction to implement the abstract idea on a set of generic computer components.” *Id.*

Finally, the Examiner concludes that the claims do not include additional elements that amount to significantly more than the judicial exception because “the additional elements merely amount to an instruction to implement the abstract idea on a set of generic computer components. . . . Even in consideration of the elements in combination, the additional elements of a computer having a processor that has a manufacturing unit merely amount to a generic arrangement of computing components.” *Id.* at 9.

Appellant argues that

nowhere do the claims say/recite/suggest a sales activity. At most, the claims are directed to the customizing of products (as acknowledged by the examiner) and not the alleged sales activity as argued by the examiner. Thus, the claims do not recite any judicial exception much less the method of organizing human activity as alleged in the Examiner’s Answer.

Reply Br. 1. Appellant also argues that the claims integrate any patent-ineligible method of organizing human activity into a practical application. *Id.* at 1–2. Specifically, Appellant argues that the claimed system and method improve the process of manufacturing a customized product. *Id.* at 2.

An invention is patent-eligible if it claims a “new and useful process, machine, manufacture, or composition of matter.” 35 U.S.C. § 101.

However, the Supreme Court has concluded that “[l]aws of nature, natural phenomena, and abstract ideas” are not patentable under 35 U.S.C. § 101. *See, e.g., Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014).

To determine if a claim falls into an excluded category, we apply a two-step framework, described in *Mayo* and *Alice*. *Id.* at 217–18 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 75–77 (2012)). We first determine what the claim is “directed to.” *See Alice*, 573 U.S. at 219 (“On their face, the claims before us are drawn to the concept of intermediated settlement, *i.e.*, the use of a third party to mitigate settlement risk.”); *see also Bilski v. Kappos*, 561 U.S. 593, 611 (2010) (“Claims 1 and 4 in petitioners’ application explain the basic concept of hedging.”).

Patent-ineligible abstract ideas include certain methods of organizing human activity, such as fundamental economic practices (*Alice*, 573 U.S. at 219–20; *Bilski*, 561 U.S. at 611), mathematical formulas (*Parker v. Flook*, 437 U.S. 584, 594–95 (1978)), and mental processes (*Gottschalk v. Benson*, 409 U.S. 63, 67 (1972)). In contrast, patent-eligible inventions include physical and chemical processes, such as “molding rubber products” (*Diamond v. Diehr*, 450 U.S. 175, 191 (1981)); “tanning, dyeing, making water-proof cloth, vulcanizing India rubber, smelting ores” (*id.* at 182 n.7 (quoting *Corning v. Burden*, 56 U.S. 252, 267–68 (1853))); and manufacturing flour (*Benson*, 409 U.S. at 69 (citing *Cochrane v. Deener*, 94 U.S. 780, 785 (1876))).

In *Diehr*, the claimed method employed a mathematical formula, but the Supreme Court held that “a claim drawn to subject matter otherwise

statutory does not become nonstatutory simply because it uses a mathematical formula.” *Diehr*, 450 U.S. at 187; *see also id.* at 191 (“We view respondents’ claims as nothing more than a process for molding rubber products and not as an attempt to patent a mathematical formula.”). The Supreme Court noted, however, that a claim “seeking patent protection for that formula in the abstract . . . is not accorded the protection of our patent laws, and this principle cannot be circumvented by attempting to limit the use of the formula to a particular technological environment.” *Id.* (citing *Benson* and *Flook*); *see, e.g., id.* at 187 (“It is now commonplace that an *application* of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection.”).

If the claim is “directed to” an abstract idea, we turn to the second step of the *Alice* and *Mayo* framework, and “examine the elements of the claim to determine whether it contains an ‘inventive concept’ sufficient to ‘transform’ the claimed abstract idea into a patent-eligible application.” *Alice*, 573 U.S. at 221 (internal quotation marks omitted). “A claim that recites an abstract idea must include ‘additional features’ to ensure ‘that the [claim] is more than a drafting effort designed to monopolize the [abstract idea].’” *Id.* (quoting *Mayo*, 566 U.S. at 77 (alterations in original)). “[M]erely requir[ing] generic computer implementation[] fail[s] to transform that abstract idea into a patent-eligible invention.” *Id.*

The PTO has published revised guidance on the application of § 101. *2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50 (January 7, 2019) (“Revised Guidance”). Under that guidance, we first determine whether the claim recites:

(1) any judicial exceptions, including certain groupings of abstract ideas (i.e., mathematical concepts; certain methods of organizing human activity such as a fundamental economic practice; or mental processes); and

(2) additional elements that integrate the judicial exception into a practical application (*see* MPEP §§ 2106.05(a)–(c), (e)–(h)).

*See* 84 Fed. Reg. at 54–55. Only if a claim (1) recites a judicial exception and (2) does not integrate that exception into a practical application, do we then determine whether the claim:

(3) adds a specific limitation beyond the judicial exception that is not a “well-understood, routine, conventional activity” in the field (*see* MPEP § 2106.05(d)); or

(4) simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception.

*See* 84 Fed. Reg. at 56.

*Revised Guidance Step 2(A), Prong 1*

Following the Revised Guidance, we first consider whether the claims recite a judicial exception, such as certain methods of organizing human activity, which include “commercial or legal interactions (including agreements in the form of contracts; legal obligations; advertising, marketing or sales activities or behaviors; business relations).” 84 Fed. Reg. at 52. The Examiner finds that the claims recite a judicial exception of this type; specifically, “a certain method of organizing human activity because [they] relate[] to commercial or legal interactions such as sales activities or

behaviors since allowing a user to customize a product and view customizations of a product is a sales activity or behavior.” Ans. 4.

Under Step 2A, prong 1 of the Revised Guidance, however, the relevant question is whether a claim “recites” a judicial exception, not whether a claimed invention “relates to,” for example, sales activity. The USPTO has clarified that

a claim recites a judicial exception when the judicial exception is “set forth” or “described” in the claim. While the terms “set forth” and “describe” are thus both equated with “recite,” their different language is intended to indicate that there are two ways in which an exception can be recited in a claim. For instance, the claims in *Diamond v. Diehr* clearly stated a mathematical equation in the repetitively calculating step, such that the claims “set forth” an identifiable judicial exception, but the claims in *Alice Corp. v. CLS Bank*, “described” the concept of intermediated settlement without ever explicitly using the words “intermediated” or “settlement.”

October 2019 Patent Eligibility Guidance Update, page 1; *see* 84 Fed. Reg. 55942-01 (available at [www.uspto.gov/PatentEligibility](http://www.uspto.gov/PatentEligibility)).

Here, the claims do not clearly state any sales activity. Nor do the claims “describe” a sale without explicitly using that word; the only exchange described in claim 6 is transmittal of a set of design area markups from a computer having a manufacturing unit to a manufacturer, and the return of a reference product from the manufacturer to the manufacturing unit. While the manufacturer performs a service in the method of claim 6, the Examiner has not persuasively explained how the described exchange is a “sale” of either a set of design area markups or a reference product.

The Specification’s description of the background of the invention, and the problem it seeks to solve, also indicates that the claimed process is not a sales activity, but rather a method of designing a customized product.

The Specification states that customizable products can be partially described by vector patterns mapping areas of printing, called Design Areas. Spec. 1:23–25. But a “complete description of the mapping of design areas to product is often impractical or difficult to obtain from manufacturers.” *Id.* at 1:26 to 2:1. “Thus, a system and method are provided for acquisition, characterization, and application of Manufacturing patterns to the automated production of the digital representation of these patterns as interactive media that gathers a customer’s input, and subsequent production of physical products.” *Id.* at 2:8–11.

While the customized products resulting from the invention may be intended to be sold to consumers, the invention is in the method of designing, not selling, the products. We therefore conclude that the Examiner has not shown that the claims recite a judicial exception. “If the claim does not recite a judicial exception, it is not directed to a judicial exception . . . and is eligible. This concludes the eligibility analysis.” 84 Fed. Reg. at 54. The rejection of claims 1–3, 5–8, and 10 under 35 U.S.C. § 101 is reversed.

#### *Anticipation*

The Examiner finds that Yankton discloses a system and method meeting all of the limitations of claims 1–3, 5–8, and 10. Final Action 17–19.

Appellant argues, however, that the “claim[s] recite ‘a computer having a processor that has a manufacturing unit, the manufacturing unit that automatically transmits a set of design area markups to a manufacturer that returns a reference product with mark-ups to the manufacturing unit’ that is not found in Yankton.” Appeal Br. 7. Specifically,

in Yankton, the system (allegedly the claimed manufacturing unit of the computer) both customizes the surfboard and displays the customized surfboards as shown in Figure 15. In contrast, the claim element requires that the claimed **“manufacturer that returns a reference product with mark-ups to the manufacturing unit”** which is not found in Yankton. If it was disclosed in Yankton (which it is not), the fabrication machine in Yankton would return a reference product with mark-ups which plainly does not occur in Yankton.

*Id.*

With respect to this limitation, the Examiner finds that Yankton at [0049] discloses the system includes a remote customer computer station which includes a processor and is connected via the internet with a server (*i.e. manufacturer*); additionally, [0050] discloses the computer station is connected to a fabrication machine configured to fabricate the customized board (*i.e. manufacturer*) and includes a software program (*i.e. manufacturing unit*) which includes instructions to the processor for executing the steps of the method.

Final Action 17–18 (emphasis added).

We agree with Appellant that the Examiner has not identified a disclosure in Yankton of the disputed limitation. Yankton discloses “methods and computer implemented apparatuses which allow consumers . . . to customize boards such as surfboards and paddle boards using a computer enabled interface and one or more board fabrication machines.” Yankton ¶ 3. In one embodiment, “[t]he system generally includes a remote customer computer station connected in a known manner via the internet with a server. . . . The server is able to communicate information to and from the remote computer in a known manner to a main computer station.” *Id.* ¶ 49.

Thus, the system described in Yankton’s paragraph 49 communicates information between a remote consumer computer station and another

(main) computer station. The server is not disclosed to “manufacture” anything, and the Examiner has not persuasively shown that a skilled artisan would have interpreted the “manufacturer” recited in the claims to encompass the computer server described in Yankton.

Yankton states that “[t]he main computer station is also connected to communicate with a computer controlled fabrication machine configured to fabricate the customized board.” Yankton ¶ 50. Thus, the fabrication machine manufactures a *customized* board. Claims 1 and 6, however, require transmitting “a set of design area markups to a manufacturer that returns a *reference* product with markups to the manufacturing unit” as a separate element from transmitting “interactive assets to the manufacturer that produces the *customized* product.” *See* claim 6 above.<sup>6</sup> The reference product is distinct from the “customized product” recited in the final step of claim 6.

The Examiner reasons that “the claims [do] not positively recite that the manufacturer actually returns a reference product with markups to the manufacturing unit. Rather, as claimed, the manufacture[r] is merely capable of returning a set of markups to the manufacturing unit.” Ans. 11. Claim 6, however, expressly recites “automatically transmitting, using a computer having a processor that has a manufacturing unit, a set of design area markups to a manufacturer that returns a reference product with markups.” Independent claim 1 similarly recites a “manufacturing unit that automatically transmits a set of design area markups to a manufacturer that returns a reference product with mark-ups.”

---

<sup>6</sup> “[I]nteractive assets . . . render a representation of the customizable product.” Spec. 11:12.

The Specification describes this aspect of the invention as follows:

The system next may gather Manufacturing Patterns (126) from the Manufacturer. . . . [and] generate a set of manufacturing output files (128) with specific Mark-up to characterize each Manufacturing Pattern, these are called Design Area Markups. . . .

The system may then automatically transmit[] Design Area Markups (130) and assembly instructions to the Manufacturer for the manufacturing of custom product with markup, this product may be called *Reference Product*. The system may then receive the *Physical Reference Product* (132) and use the photographic and computational methods described in the Intake Flow to map each Design area to the physical product.

Spec. 10:11–24 (emphasis added).

Thus, when read in light of the Specification, the first step of claim 6 requires transmitting design area markups to a manufacturer, which returns a physical reference product for use in mapping design areas to a physical product. The Examiner’s interpretation of the claims—as not requiring the manufacturer to actually return a reference product—is unreasonably broad when the claim language is read in light of the Specification.

In summary, while the Examiner has identified a description in Yankton of a manufacturer (fabrication machine) that produces a customized product, she has not identified a description of transmitting design area markups to a manufacturer that returns a reference product with markups. “Anticipation requires that all of the claim elements and their limitations are shown in a single prior art reference.” *In re Skvorecz*, 580 F.3d 1262, 1266 (Fed. Cir. 2009). The rejection under 35 U.S.C. § 102(e) is therefore reversed.

*Obviousness*

The Examiner rejected claims 1–3, 5–8, and 10 as obvious based on Yankton and Nykamp, reasoning that

Nykamp explicitly teaches: *a manufacturer that returns a reference product with mark-ups to the manufacturing unit* (Nykamp, see at least: [0115] discloses that in the interactive product design process (see [0106]), a user may select a color for the product whereby the system may update the display of the product to correspond to the design change, e.g. the system is displaying the product containing the selected customization features (i.e. markups); see also, [0116]).

Final Action 19. The Examiner concluded that it would have been obvious to have returned and displayed the customized product as taught in Nykamp in the product customization system of Yankton because it would have allowed a product display to be updated based on a change applied to the product, such as a color added to the product (see Nykamp, [0115]–[0116]). Additionally it would have allowed participants in the interactive product design session to see the product as its design evolves (see Nykamp, [0117]).

*Id.* at 20.

Appellant argues that

Nykamp discloses a system for collaborative product design. Nykamp appears to disclose a manufacturer, but still fails to disclose the claimed interaction between the manufacturing unit (that automatically transmits a set of design area markups to a manufacturer) and the manufacturer (that returns a reference product with mark-ups to the manufacturing unit) as claimed.

Appeal Br. 7.

We agree with Appellant that the Examiner has not persuasively shown that the disputed limitation would have been obvious based on Yankton and Nykamp. The Examiner points to Nykamp’s paragraphs 115–

117 as describing a manufacturer that returns a reference product with markups to a manufacturing unit. Final Action 19–20.

Nykamp describes computer-based systems that can be used to collaboratively design a product. Nykamp ¶ 1. Nykamp describes an exemplary process in which “different colors could be used for different parts of [a] shoe.” *Id.* ¶ 115. When the user selects a color, “the user’s communication module 354 sends a Change Design message to the system server 302,” which “sends a Change Design message to the other user’s computers 304 . . . [to] update the display of the product to correspond to the design change.” *Id.*

In the same example, Nykamp states that the user can select different lace types, ankle heights, or widths for the shoe. *Id.* ¶ 116. “When the user changes one of these aspects of the shoe, the display is modified to illustrate the change and a Change Design message is similarly sent to the system server 302 and propagated to the other user computers 304.” *Id.*

Thus, the disclosures of Nykamp cited by the Examiner describe updating an image of a product on a display in response to changes to specific parameters selected by a user. The cited disclosures, however, do not describe transmitting “a set of design area markups to a manufacturer that returns a reference product with markups to the manufacturing unit,” as required by the claims.

In summary, the Examiner has not established that a system or method meeting all of the limitations of the claims would have been obvious to a person of ordinary skill in the art based on Yankton and Nykamp. We therefore reverse the rejection under 35 U.S.C. § 103(a).

DECISION SUMMARY

In summary:

<b>Claims Rejected</b>	<b>35 U.S.C. §</b>	<b>Reference(s)/Basis</b>	<b>Affirmed</b>	<b>Reversed</b>
1-3, 5-8, 10	101	Ineligibility		1-3, 5-8, 10
1-3, 5-8, 10	102(e)	Yankton		1-3, 5-8, 10
1-3, 5-8, 10	103(a)	Yankton, Nykamp		1-3, 5-8, 10
<b>Overall Outcome</b>				1-3, 5-8, 10

REVERSED