

Leveraging Design Patents to Protect Graphical User Interfaces

Protecting the "Look and Feel" of GUIs, Understanding Current U.S. and Global Prosecution Practices

TUESDAY, AUGUST 10, 2021

1pm Eastern | 12pm Central | 11am Mountain | 10am Pacific

Today's faculty features:

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Leveraging Design Patents to Protect Graphical User Interface

Tracy-Gene G. Durkin

August 10, 2021

Technical Minds. Legal Muscle.

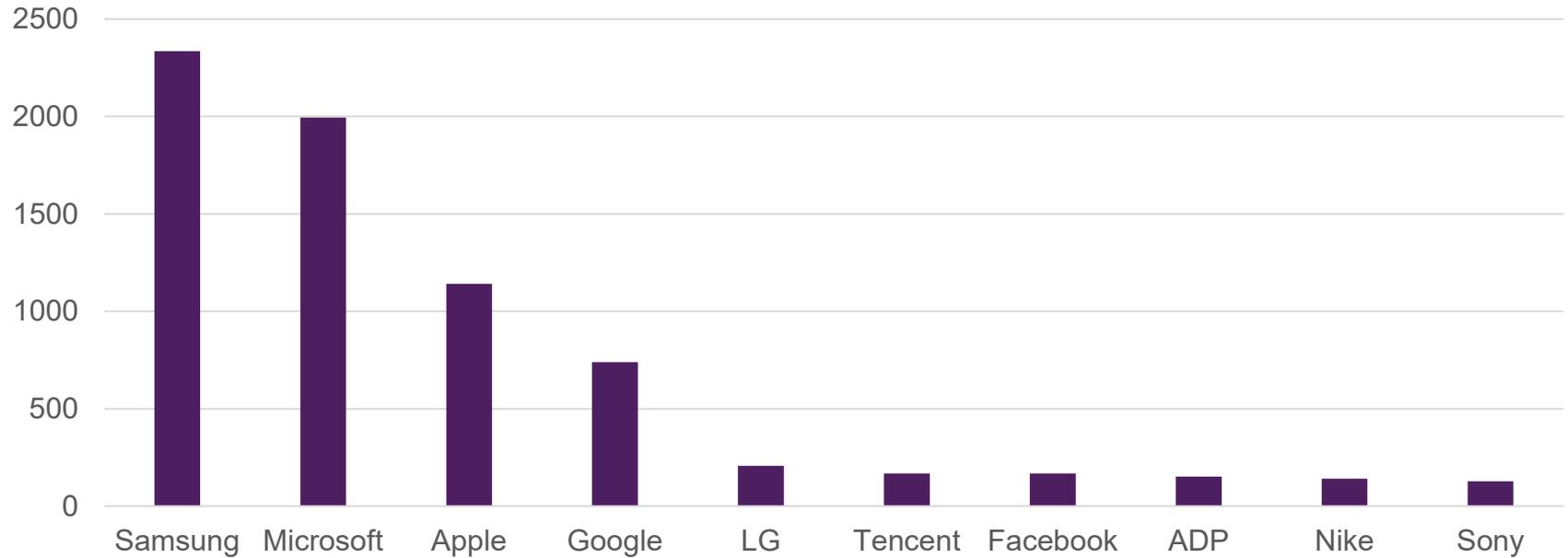
Current Trends in User Interface (UI) and User Experience (UX)

- Development of computer generated UI/UX is booming
- Driven by the ubiquity of smartphones
- Users can choose between more than 2 million apps in the Apple App Store and Google Play
- How can software developers protect the intellectual property in these lucrative and growing products in light of *Alice Corp. v. CLS Bank International*?
- How can companies protect their 3D product designs in a virtual world?

UI/UX Design Applications and Rights Also Booming

- Design patents/Registrations are the fastest growing IP asset to protect icons UI/UX
- Trademark and copyright are available for some UI/UX designs, but not all (not always source identifying or sufficiently creative)
- UI/UX designs make up about 5% of all U.S. design patents issuing in the past 5 years
- One of the fastest growing areas in the USPTO Design Group (grown from 1 – 20+ patent examiners in since 2007)

Top U.S. GUI Design Patent Holders



Notes:

US design patents granted 2011-2020

US Current Main Classes D14/485-495

Assignees are Optimized Assignees via Derwent Innovation

But Look Who Else is Filing



Comparison of U.S. Design vs. Utility Patents

- Utility Patents protect the way an article **“works”** (for 20 years from **filing**)
- Design Patents protect the way an article **“looks”** (for 15 years **from issue**)
- Both have to be **novel** (35 U.S.C. §102) and **not obvious** (35 U.S.C. §103)
- Utility patents cannot protect inventions which are not useful (35 U.S.C. Section §101)
- Design patents cannot protect designs which are not **ornamental** i.e., are primarily functional (35 U.S.C. Section §171)

The Two Are Not Mutually Exclusive

Utility Patent

Representative Claim:

1. A method of controlling an electronic device with a touch-sensitive display, comprising:

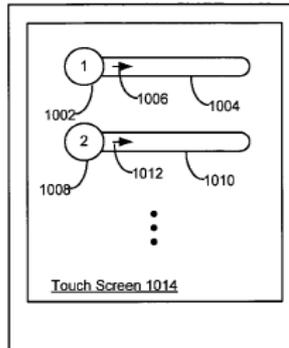
detecting contact with the touch-sensitive display while the device is in a user-interface lock state;

moving an unlock image along a predefined displayed path on the touch-sensitive display in accordance with the contact, wherein the unlock image is a graphical, interactive user-interface object with which a user interacts in order to unlock the device;

transitioning the device to a user-interface unlock state if the detected contact corresponds to a predefined gesture; and

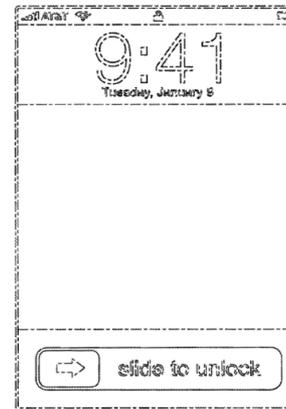
maintaining the device in the user-interface lock state if the detected contact does not correspond to the predefined gesture.

Apple's 7,657,849
Slide-to-Unlock
Utility Patent



Design Patent

Apple's D675,639
Slide-to-Unlock
Design Patent



Apple's D704,212
Slide-to-Unlock
Design Patent





UI/UX Designs and the Article of Manufacture (AoM) Requirement

USPTO Treats UI/UX as Two-Dimensional Surface Ornamentation Applied to an AoM

- Prior to 1996 when the USPTO implemented Guidelines for examining computer-generated icons, they were not patentable subject matter because they were not considered “**articles of manufacture**”
- The Guidelines were shaped in the wake of several cases decided by the Board of Patent Appeals and Interferences in 1992
- One case in particular, *Ex Parte Strijland*, planted the seed from which the Guidelines were created

Ex Parte Strijland

26 U.S.P.Q.2d 1259 (USPTO 1992)

- 35 USC §171 provides that
 - “Whoever invents any new, original and ornamental design **for an article of manufacture** may obtain a patent therefor, subject to the conditions and requirements of this title”
- BPAI affirmed the examiner’s rejection of a computer icon for failure to claim an article of manufacture because the design was purely **surface ornamentation**, there was no AoM
- “[i]f an application claims a computer-generated icon shown on a **computer screen, monitor, other display panel**, or a portion thereof, the claim complies with the "article of manufacture" requirement...” MPEP 1504.01(a)(I)

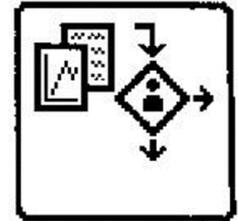


FIG. 6

Figure as filed

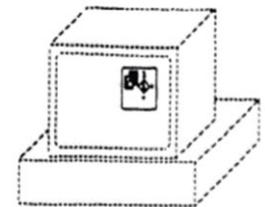
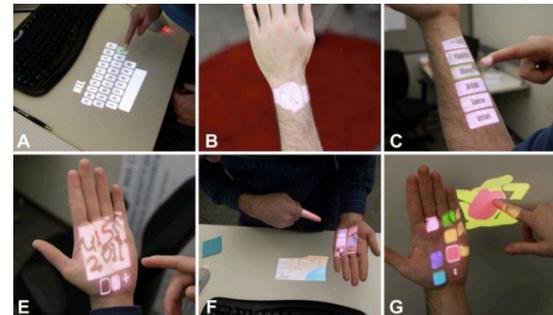


Figure as amended

Current USPTO Practice is Out of Step with Advances in Technology

- As technology has continued to evolve, conventional **displays are no longer necessary** for a user to visualize and interact with a UI design
- And UI is not **surface ornamentation**, it is the primary way a user interacts with devices (not hardware)



Definition of Article of Manufacture

- There are three categories of designs for an article of manufacture:
 - the design for a shape or configuration for an article of manufacture
 - a design for an ornament, impression, print, or picture **to be applied to an article of manufacture** (surface ornamentation) and
 - a combination of the first two

In re Schnell, 46 F.2d 203 (C.C.P.A. 1931)

- Currently, the USPTO only recognizes UI/UX as being in the second category

USPTO Federal Register Notice regarding the AoM

- December 2020, USPTO published a FRN seeking public input on whether its interpretation of the AoM requirement of § 171 should be revised to protect digital designs that encompass new and emerging technologies including **projected designs** (i.e. designs that can be visualized without a computer screen)
- Other countries/regions such as the EUIPO, Japan and Singapore already recognize or are in the process of amending their practices to recognize UI/UX as patentable/registrable alone

Public Comments Favoring a Practice Change

- *Ex Parte Strijland* never considered whether a computer program was an article of manufacture; the appellant only argued that the GUI was surface ornamentation and that the display was the AoM, which is the position the USPTO adopted
- The USPTO has long recognized that computer generated type fonts are patentable subject matter without requiring disclosure of a computer

abcdefghijklm
nopqrstuvwxyz

ABCDEFGHIJKLM
NOPQRSTUVWXYZ

0123456789

D802,049



USPTO Examination of UI/UX Design Applications

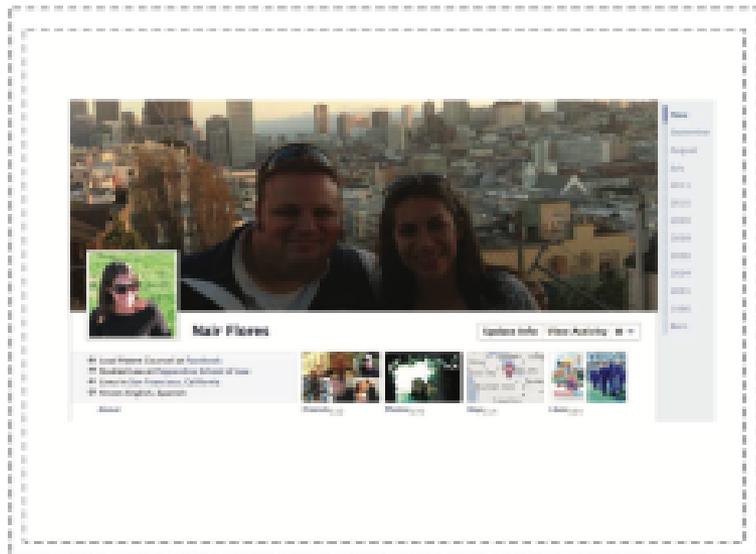
Prosecution of U.S. Design Patent Applications

- First Office Action Pendency: 14.8 months
- Total Pendency: 20.7 months
- Unexamined Application Inventory: 70,989 applications
- Design Examiners: 200
- Design Allowance Rate: 85.5
- Rocket Docket Pendency from Grant of Request to First Action: 1.9 months

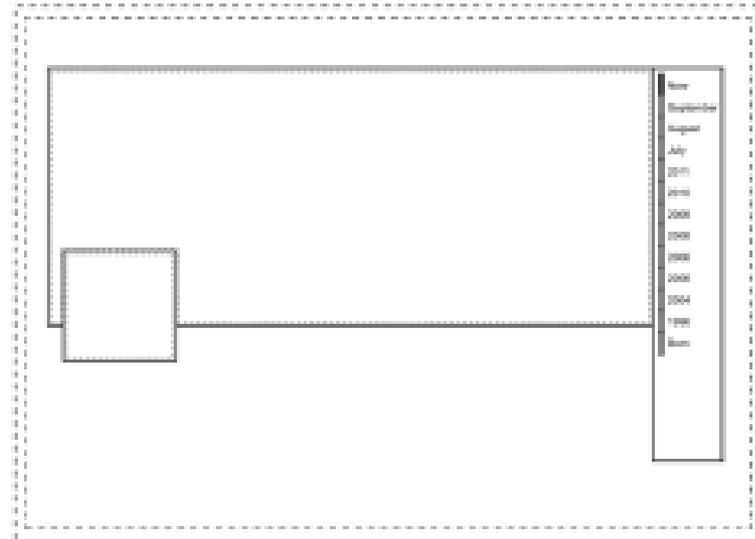
<https://www.uspto.gov/dashboard/patents/design.html>

Rejections of UI/UX Design Applications

- Appeal 2015-004317
 - Application filed with digital image and amended to line drawing before examination on the merits



Original Figure



Replacement Figure

The Rejection on Appeal

- Amended claim was rejected under 35 U.S.C. § 112, first paragraph, as lacking written description in the originally-filed application
 - the replacement figure added new matter because it was not clear in the original disclosure that the inventor had possession of the amended design at the time of filing
 - converted photographic images to an outline
 - removed some of the text and photographs
 - added solid line borders to define the windows
 - added a black-line graduated indicator and black text

The Decision

- According to the Board:
 - *In re Daniels* required reversal of the Examiner’s rejection
 - What remained in the replacement Figure was “clearly visible” in original Figure 1
 - Removal is analogous to removal of the ornamental leaf pattern from *Daniels* leecher
 - Addition of the solid line outlines also finds support in the Original Figure
 - Rejection reversed

Rejections of UI/UX Design Applications

- Appeal 2019-001776

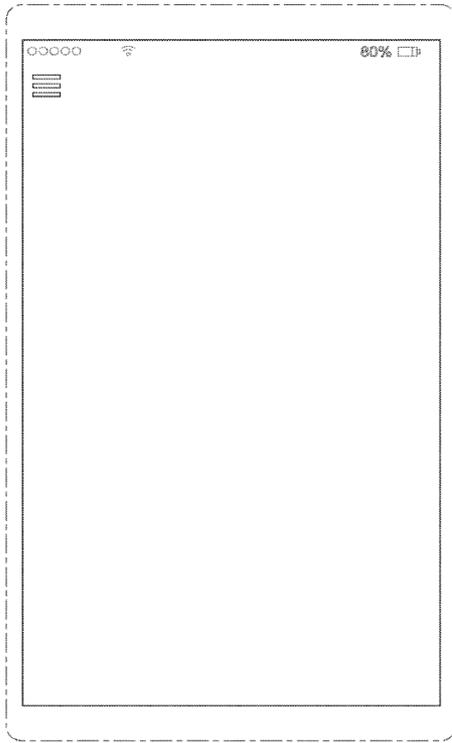


FIG. 3

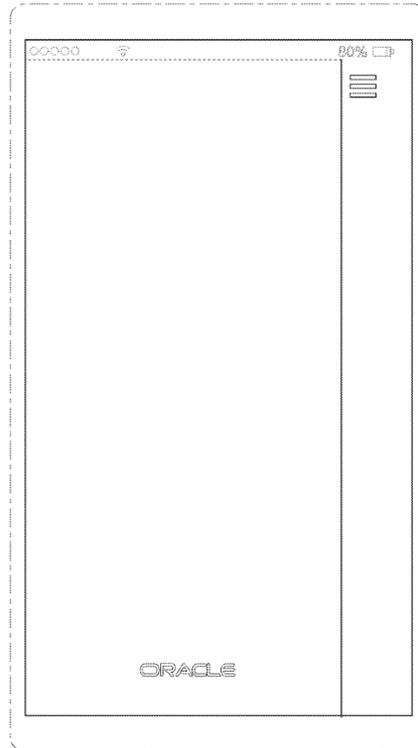
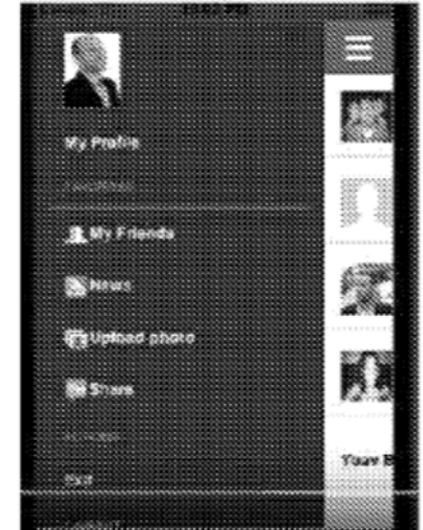


FIG. 4



Facebook Side Menu Demo by Shai Almog

The Rejection on Appeal

- Under 35 U.S.C. § 103 as obvious based on three prior art references
 - Almog has basically the same design characteristics:
 - a first view with a three bar icon in the upper left corner and text at the bottom of the design
 - a second view with a horizontal line at the right, a three-bar icon in the upper right corner, and text at the bottom of the design
 - Only differences:
 - text at the bottom is centered (insignificant); and
 - surrounded by a common geometric shape (secondary references)

The Decision

- According to the Board:
 - Almog is a not proper *Rosen* reference
 - none of Almog's text has a similar position, font, size, or overall appearance as the claimed design and therefore does not establish the same overall visual appearance as the claimed design
 - Rejection reversed

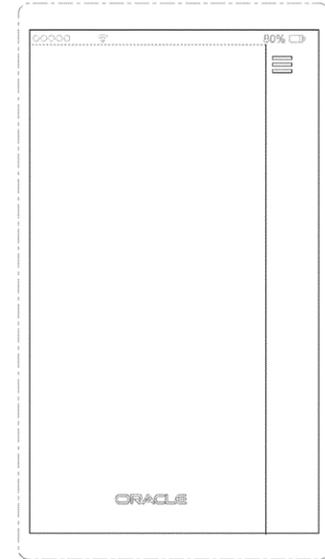
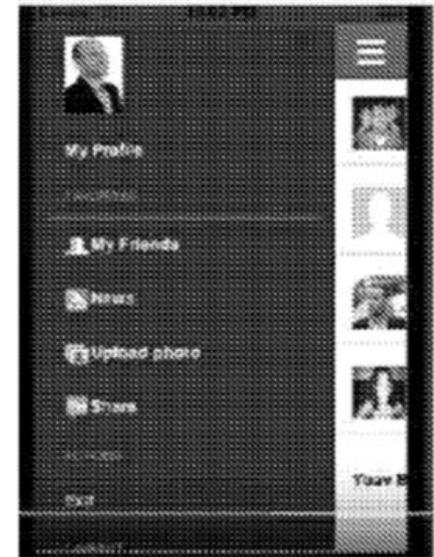


FIG. 4





Foreign Protection for UI/UX Designs

Countries that Provide Patent Protection for UI/UX Designs

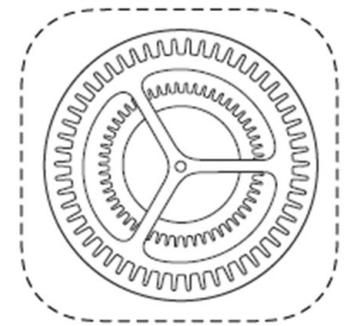
- WIPO Standing Committee on the Law of Trademarks, Industrial Designs and Geographical Indications
 - Published Questionnaire Responses on the Protection of Graphical User Interface (GUI), Icon and Typeface Designs:

https://www.wipo.int/edocs/mdocs/sct/en/sct_43/sct_43_2_rev.pdf

Nuances of Foreign UI/UX Design Protection

- A few countries (like the USPTO) still require that computer hardware be shown in the drawings (although it may be shown in broken lines)
- Priority claim to prior filed US application may be jeopardized if hardware is added to the foreign application that was not disclosed in the US application
- Some countries require an explanation of the function of the UI/UX

D745,041



FIGURE

D771,707



FIGURE

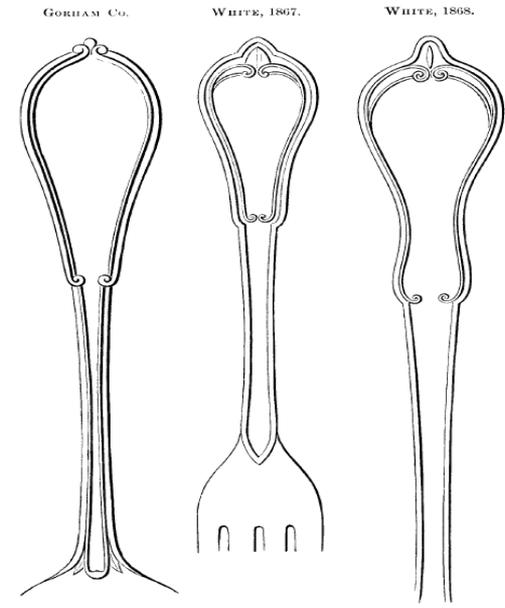


Design Patent Infringement

Test for Design Patent Infringement

“[I]f, in the eye of an **ordinary observer**, giving such attention as a purchaser usually gives, two designs are **substantially the same**, if the resemblance is such as to deceive such an observer, inducing him to purchase one supposing it to be the other, the first one patented is infringed by the other.”

Gorham v. White (U.S. Sup. Ct. 1871)



First District Court Decision Involving a UI/UX Design Patent

Apple Inc. v. Samsung Electronics
N.D. California 2012



D604,305



Galaxy S

Patent valid and infringed; Affirmed by the Federal Circuit

Second District Court Decision involving a GUI Design Patent

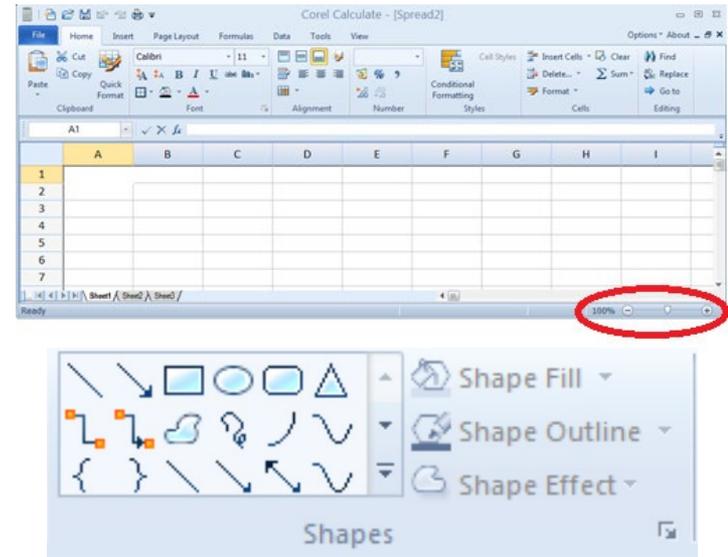


FIG. 2

D554,140



FIG. 2



Microsoft Corp. v. Corel Corp.
filed N.D. California 2015

Thank You

More information available at:
<http://www.skgf.com/design-patents>

tdurkin@sternekessler.com



Design Patents: Protecting the “Look & Feel” of GUIs

August 10, 2021

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www.bannerwitcoff.com/rkatz

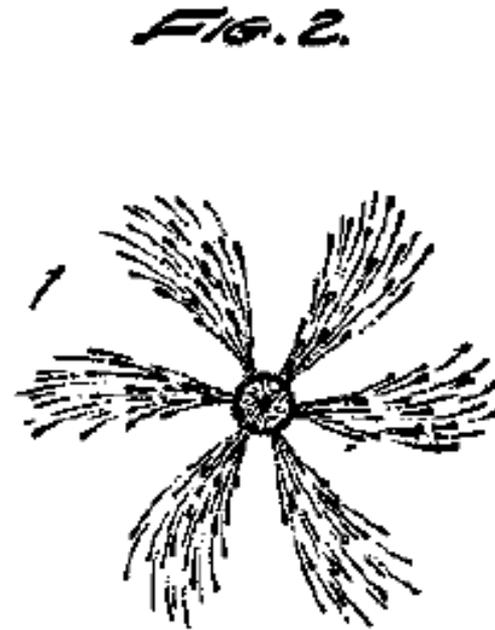
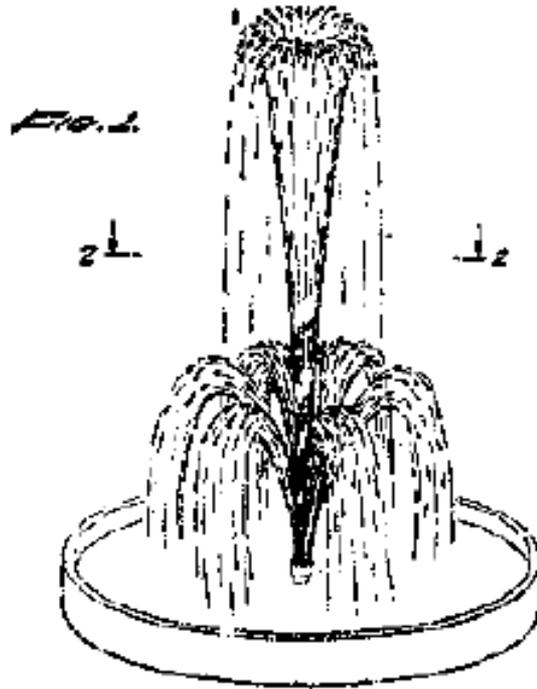
Design Patents for Screen Designs

- Introduction and what to consider protecting
- Why and How (mechanics and strategies)
 - With examples
- Emerging Technologies and Issues

35 U.S.C. Section 171

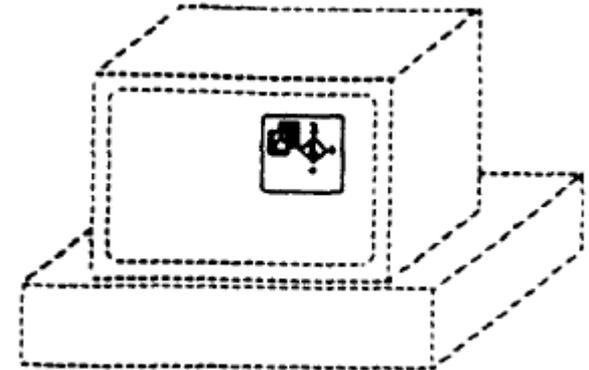
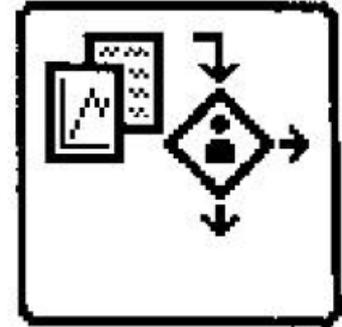
- Distinguish utility patents and design patents
- Whoever invents any new, original and ornamental design for an **article of manufacture** may obtain a patent therefor, subject to the conditions and requirements of this title.
- This refers, not just to the design of an article, but to the design for an article, and is inclusive of ornamental designs of all kinds including surface ornamentation as well as configuration of goods.”

Article of Manufacture - In re Hruby



Article of Manufacture - Ex parte Strijland

- Examiner rejected claim under 35 U.S.C. §171 of an icon design asserting that it was mere surface ornamentation rather than a design applied to an article of manufacture
- During prosecution Applicant amended the drawings to add a broken line computer
- The Examiner and Appeal Board understood that the design was for a computer display but no display was shown or described in the originally filed application.
- Board held: had the original application described a display or shown a display, the design disclosed would be patentable subject matter



USPTO GUI Design Guidelines

- Design applications for computer-generated icons must comply with the “article of manufacture” requirement of 35 U.S.C. §171
- Because a patentable design is inseparable from the object to which it is applied and cannot exist alone as mere surface ornamentation, an icon must be embodied on a computer screen, monitor or other display panel or portion thereof
- The article of manufacture on which the design is displayed may be shown in broken lines
- MPEP §1504.01(a) Computer-Generated Icons (1996 Guidelines)

WHY: Display-Based Design Patents

- Rapidly growing in real life
 - In the near future 50% of all designs will be screen designs
 - Common sense observations → More products have displays
- Companies are picking up on this reflected by design patent grants directed to GUIs

Timeframe	DPs/year	% all DPs
1990-1995	1	< 0.1%
1997-2005	70	0.5%
2007-2012	440	1.8%
2013-2014	1000	4.3%
2015	1484	5.7%
2020	2155	6.2%

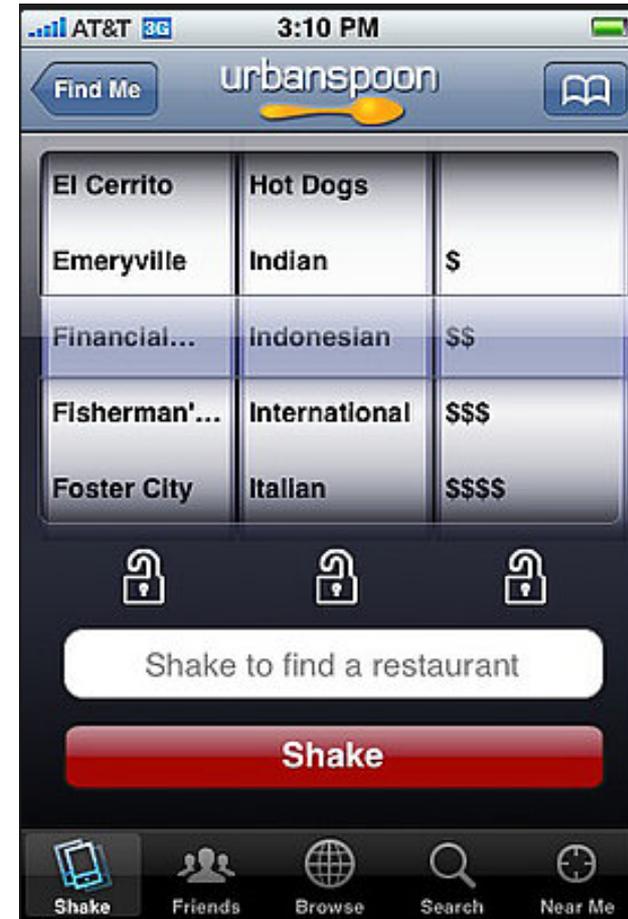
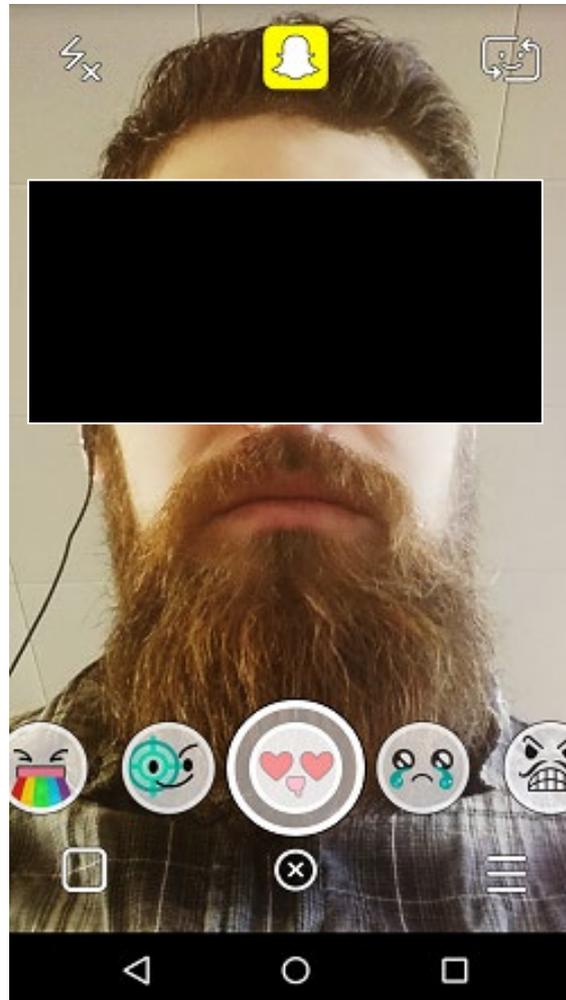
WHY: Display-Based Design Patents

- More Why:
 - It's part of the product!
 - More things via computers and mobile devices
 - shopping and buying platforms, news, sports, mapping, dining, dating, critiquing, gaming, museums, reality touring, drawing, video/photo editing, watching/listening content, messaging, taxis, social media, financial exchanges, etc.
 - Idea is to provide a great user experience (protecting APPs)
 - GUIs and icons are getting cooler
 - Connection with source/branding
 - Connection to platform based training
 - Virtual Migration
 - Movement to under the glass
 - Shift to multi-purpose devices
 - Internet of Things (more things interconnected)

Protecting Apps

- It may be the only meaningful way to protect
 - Connection with source/branding
 - Connection to platform based training
 - Virtual Migration
 - Movement to under the glass
 - Shift to multi-purpose devices
 - Internet of Things (more things interconnected)

Tinder, Snapchat, and Urbanspoon







More Categories of Home Controls



Example of Evolving Design Experiences

Nest Thermostat



Why: Final

- Companies spend hundreds of thousands/millions of dollars to develop GUIs for appearance and functionality.
- To be successful:
 - They should look cool
 - They should be intuitive
 - They should be easy to use
- Design patents may be the only way to stop third parties from skinning your design
 - Skinning is real
 - Other forms of IP may be difficult
 - Design patents are likely the best way to prevent identical and substantial skinning
 - If you want to prevent this, protecting essential portions is a must

How: Part 1: The Mechanics

What is a GUI?

- Broad definition: Any and all aspects of a screen-based user experience
- Capable of being sensed: Visual, Audible, Haptic, etc.
 - But design protection will be limited to visual
- Can be static or dynamic (animated or transitional)
- Can vary greatly in type and/or presentation and/or experience provided

How: Part 2: The Mechanics The Design Application

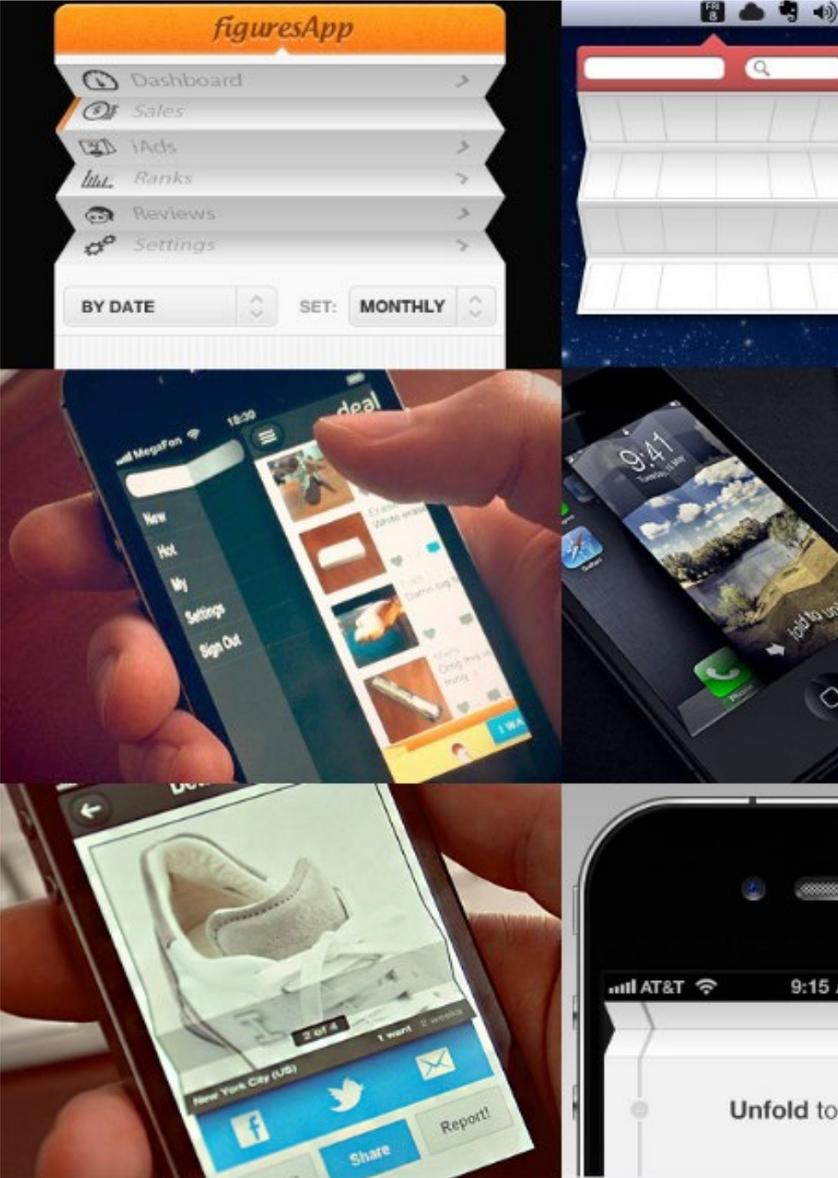
- Drawings:
 - Must show on a display screen*
 - Can show display screen boundary in broken lines
 - Disclaimed portions in broken lines
 - Image can be screenshot (color/grayscale) or line drawings
 - Strategically use broken (dashed) lines to disclaim
- Title:
 - Display Screen with....
 - USPTO reluctant
 - If title not “commonly approved” may need to tie to computer
- Special Statement:
 - Use to “explain” drawings as needed

How: Part 3a - The Strategies

- Capture the User Experience
- What protects the look and feel of the visual experience
 - Don't think like a patent attorney – think like a user
 - Strategy is a mix of science and art
 - Appreciate the uniqueness in the user experiences provided
 - Attempt to predict branding and usability effects
 - Other factors
- **GUI – visual part of the user experience**
 - **Traditional GUIs**
 - **Icons**
 - **Wait routines/cursors**
 - **Fonts**
 - **Anything visual that contributes to the user experience**
 - **Static and Dynamic**
- **NOTE: International challenges**

Look for Differentiation

Award Winning Folding Examples

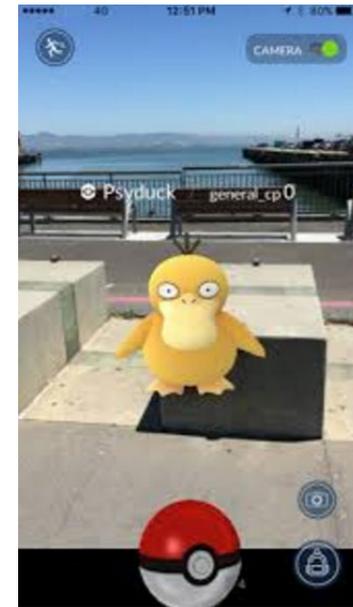
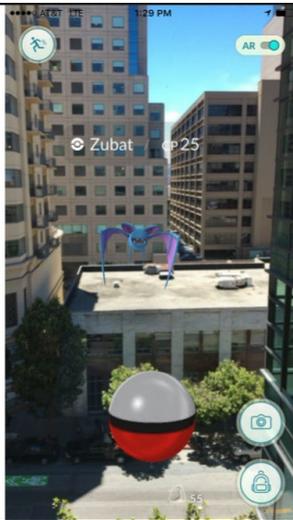


How: Part 3b

The Strategies

- **AFTER** you have figured out what creates the user experience
 - Use design patent principles for focusing on desired portions, colors, tonal contrasts, etc.
 - Static or animated
 - Be smart with disclaiming
 - Don't be afraid to be creative
- **Know USPTO practice rules and pitfalls**
 - Some unique practices associated with screen designs
 - Stay up to date on all formal and informal USPTO design practices relating to screen designs
 - Dabbling can lead to a disastrous outcome
 - Better chance to amend/fix post-filing but take steps not to rely on it

Sidebar Discussion – Pokemon Go



Sidebar Discussion – Angry Birds



ABCDEFGHIJKLM
NOPQRSTUVWXYZ
ABCDEFGHIJKLM
NOPQRSTUVWXYZ
1234567890

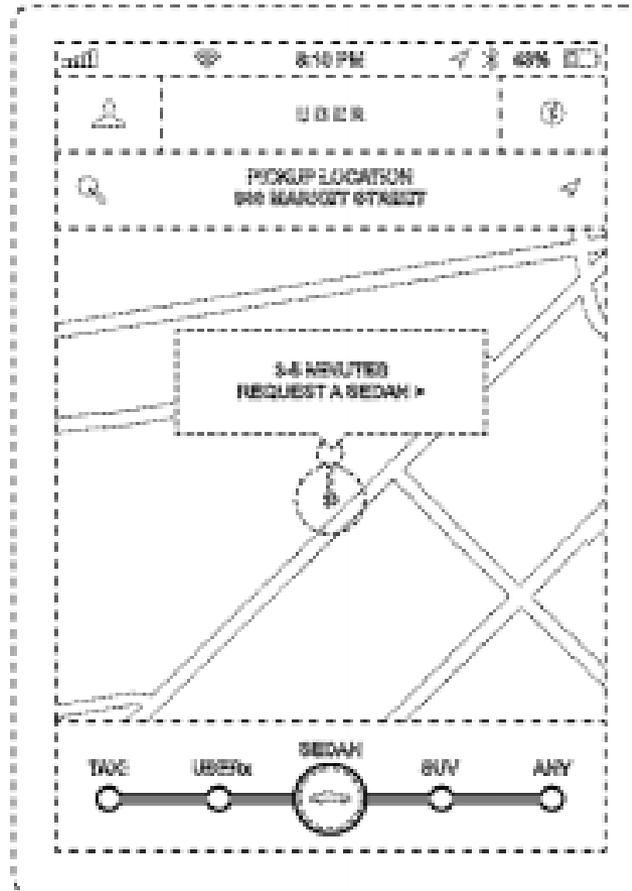
User Interface

Example – D704,212 (Apple)



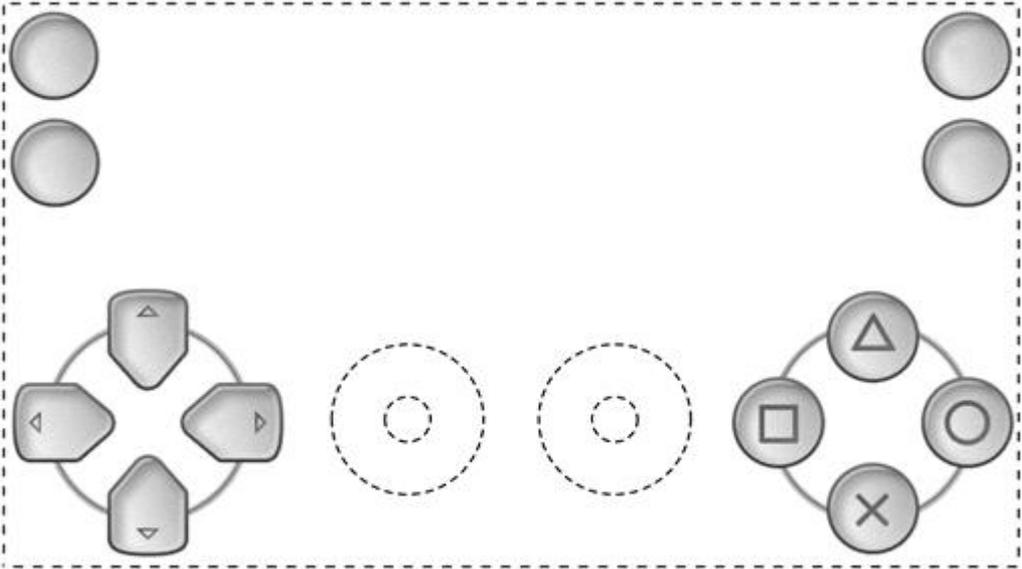
User Interface

Example – D738,901 (Uber)

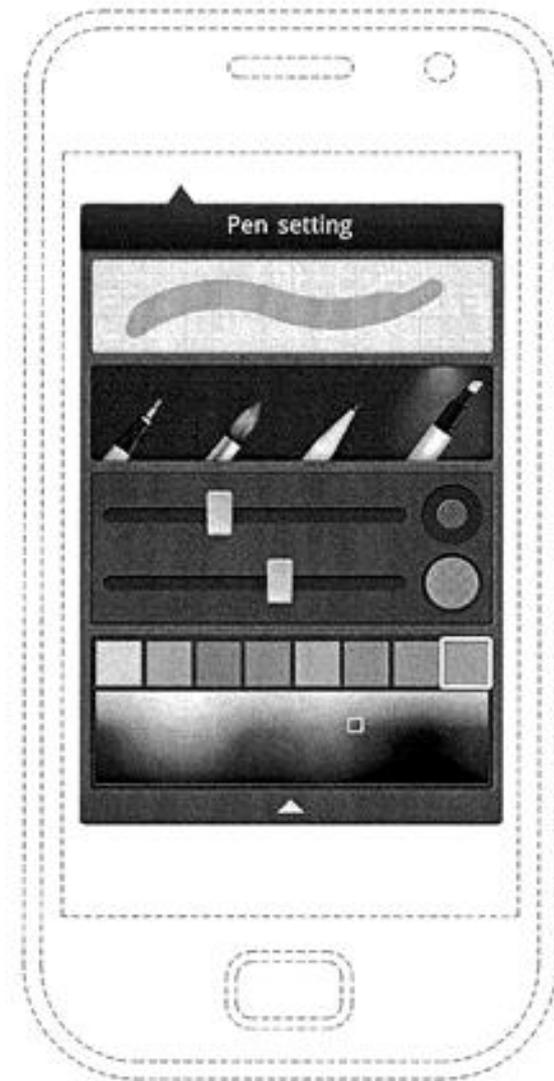


User Interface

Example – D699,259 (Sony)

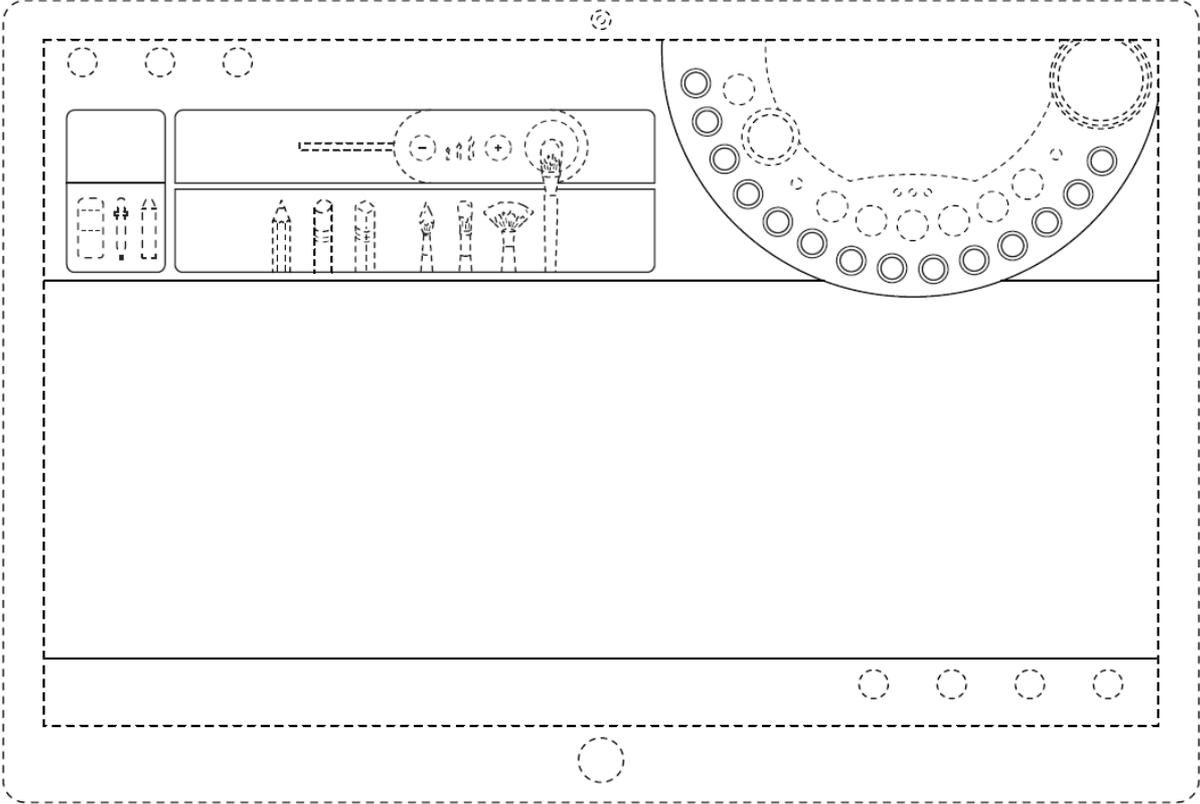


User Interface Example – D725,662 (Samsung)



User Interface

Example – D714,313 (Microsoft)



FIGURE

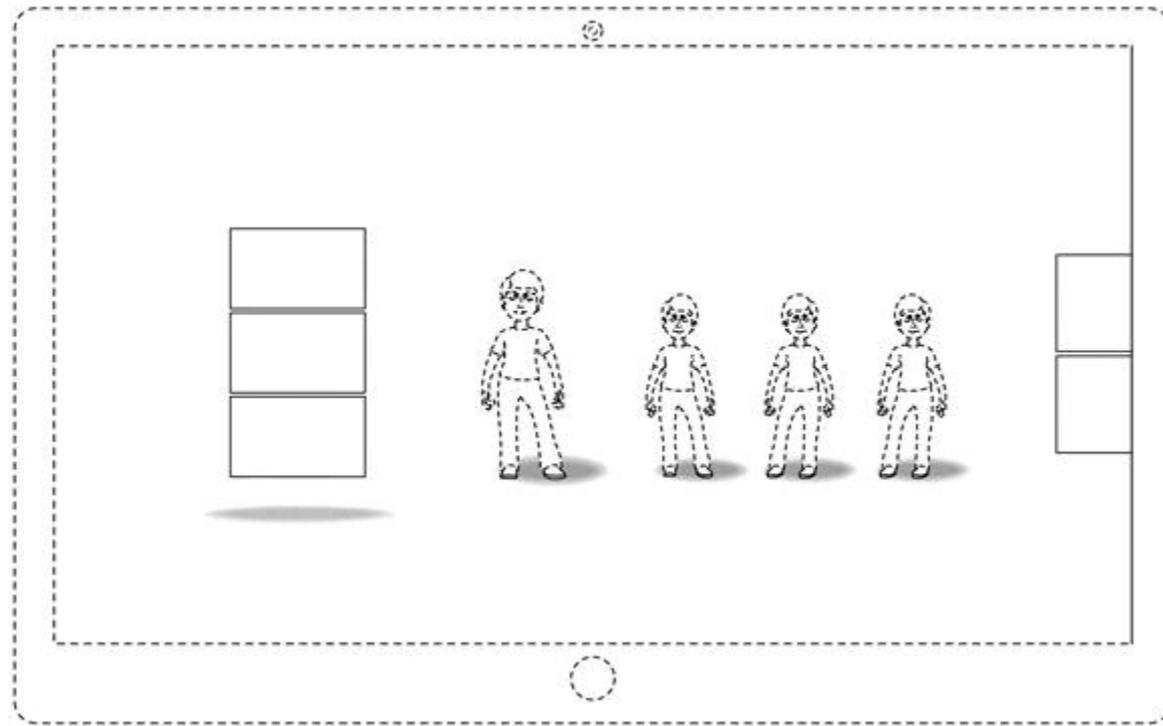
User Interface

Example – D723,054 (Nissan)

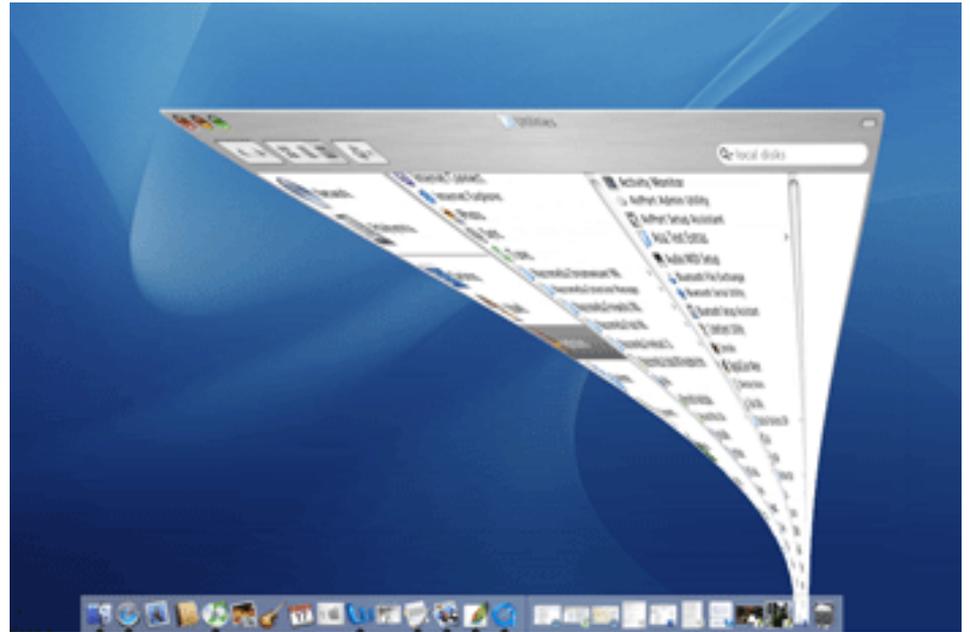
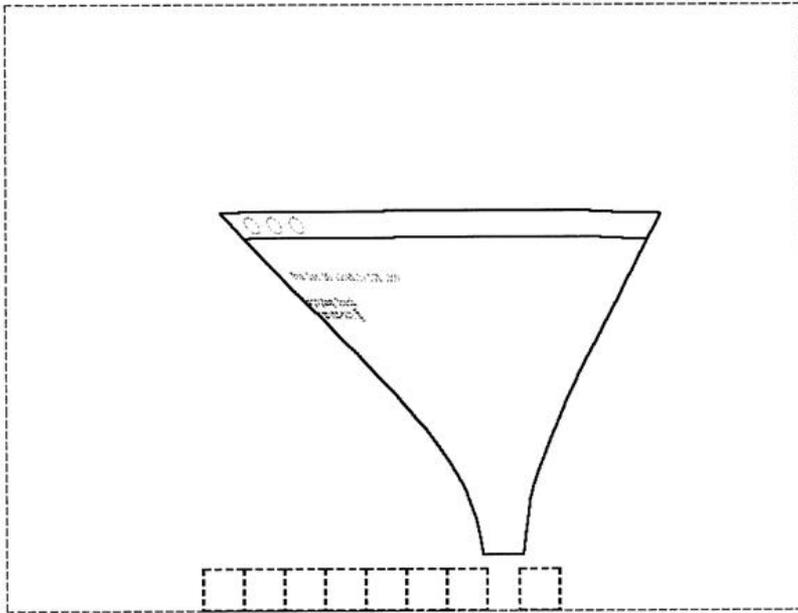


User Interface

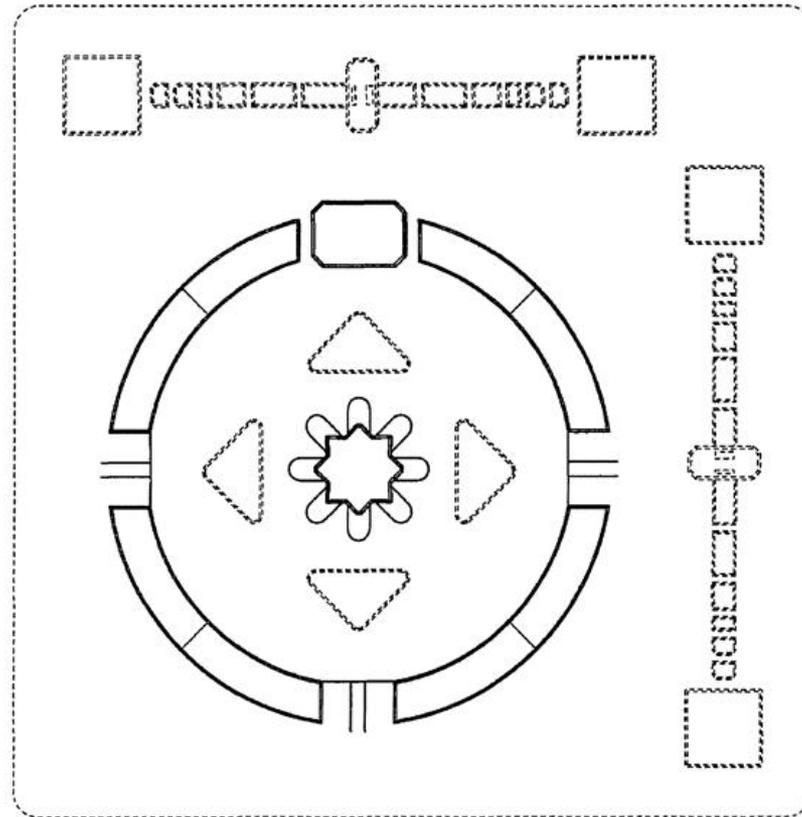
Example – D686,222 (Microsoft)



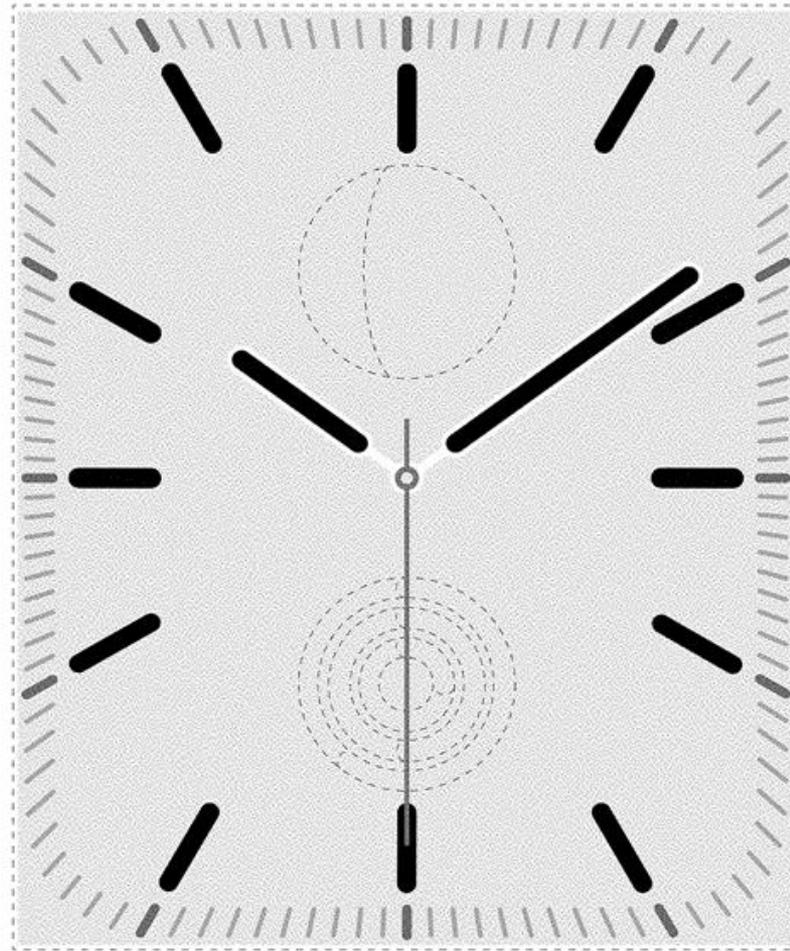
Example GUI – D457,164 (Apple)



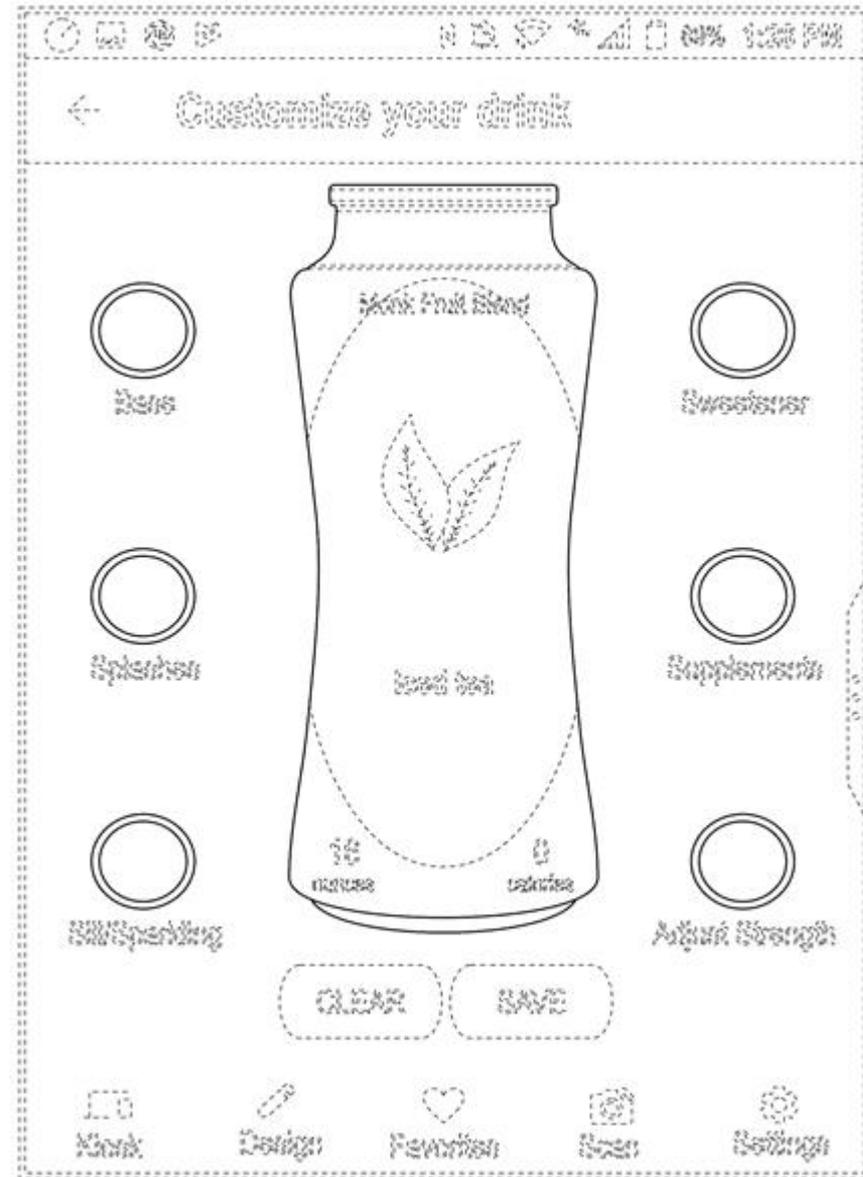
Example GUI D619,614 (Google)

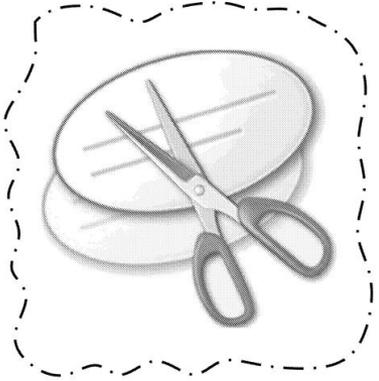
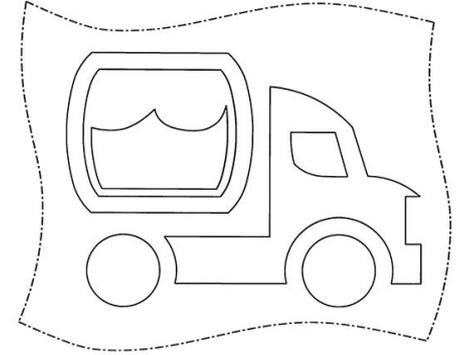
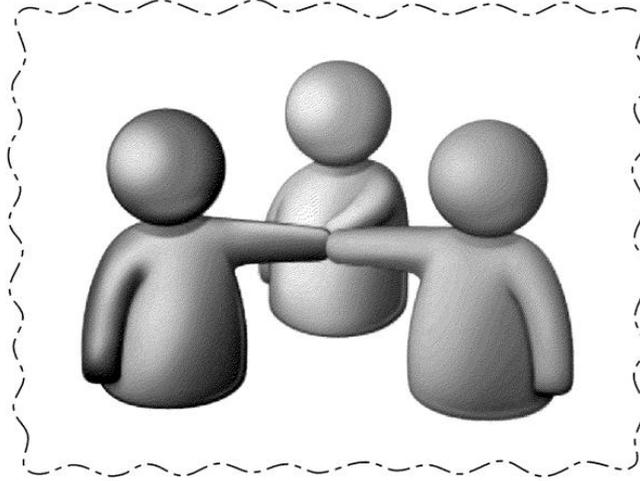


Example GUI D922,413 (Apple)

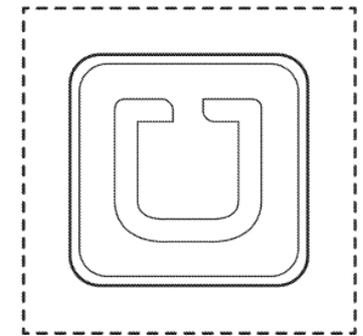
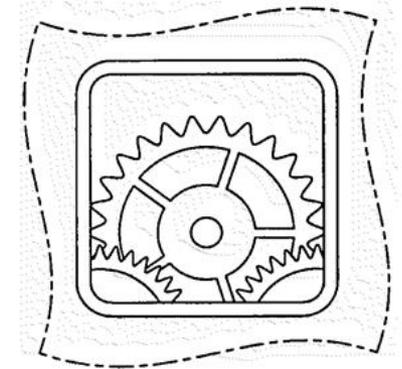


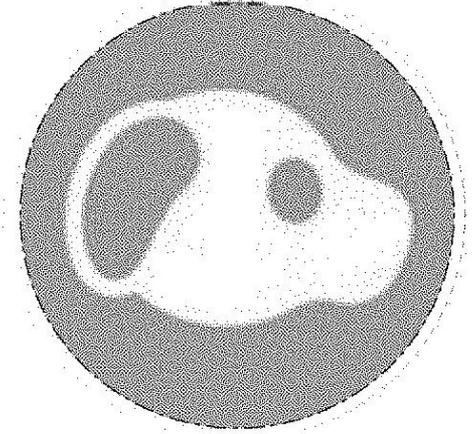
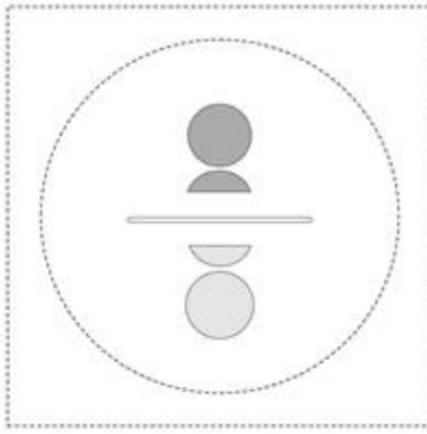
Example Display screen with graphical user interface D921019 (Myx Drinks)





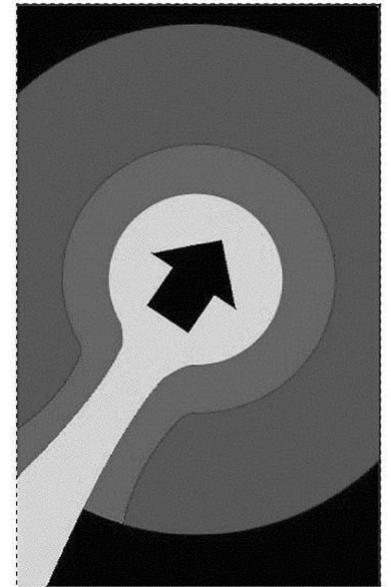
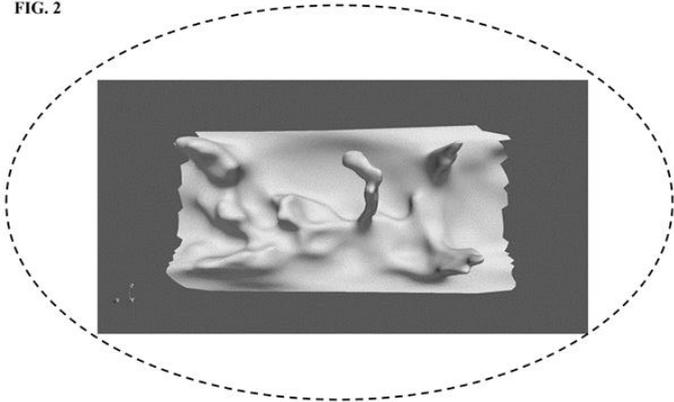
Icon Examples





Icon Examples

FIG. 2

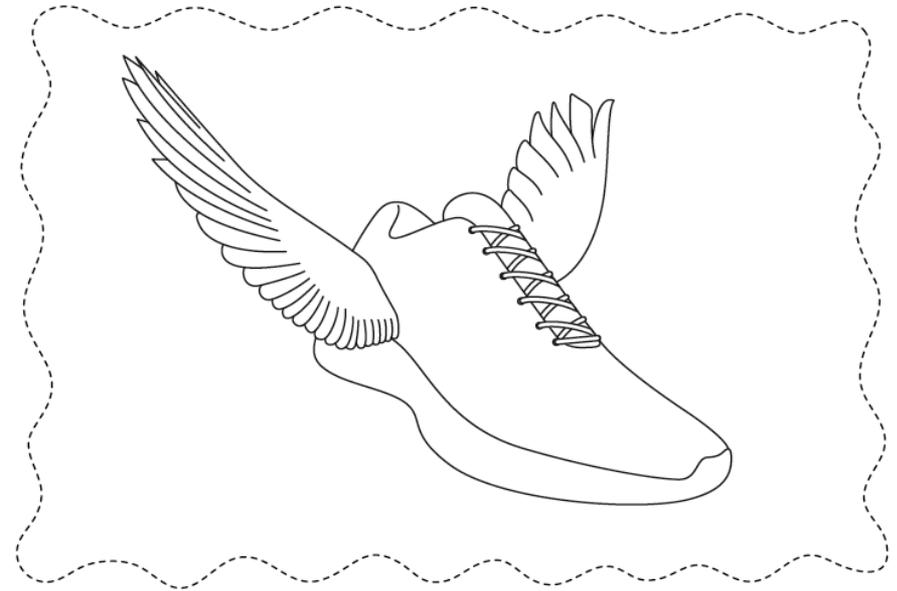
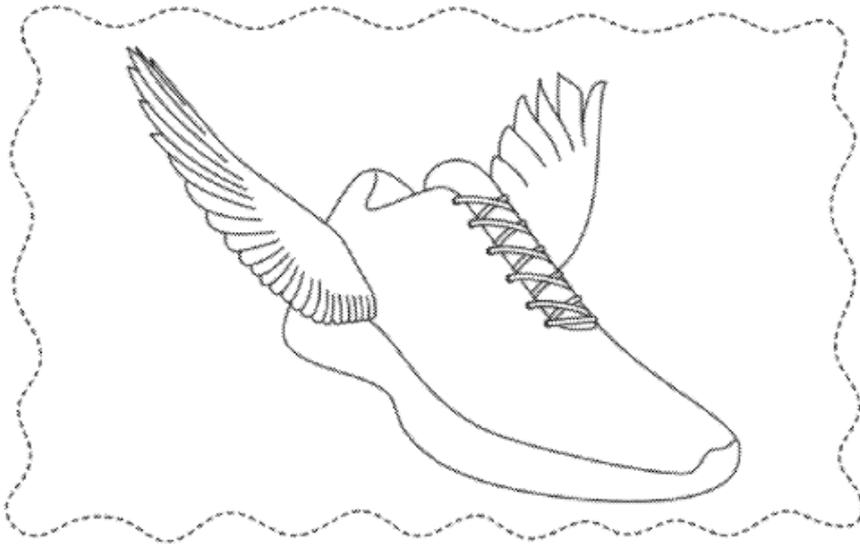


Animated Screen Designs

- Different scopes/impressions from single static image designs
- Animations
 - An important part of portfolio if experience includes movement.
 - Moving screen designs have made up about 20% of total number of screen designs over the last 3 years
 - Scope can cover minor differences in static impression if dynamic impressions are more similar

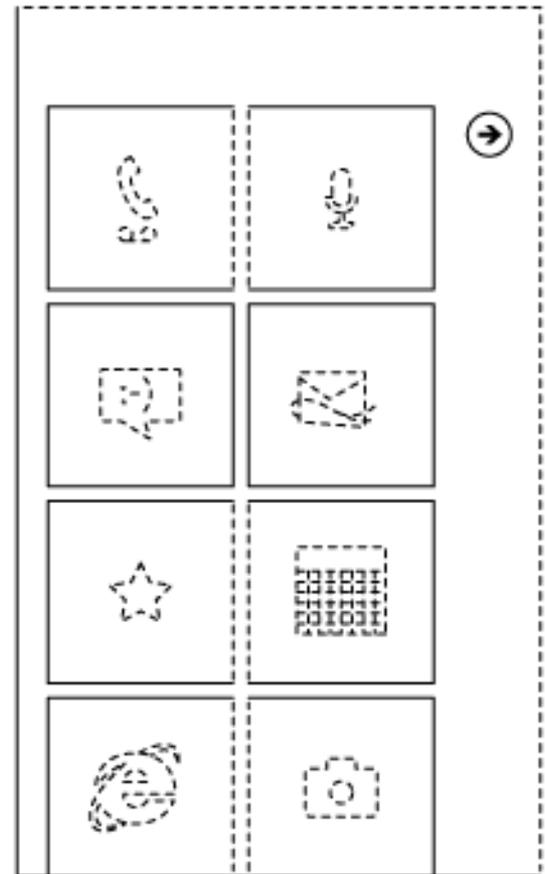
Icons – Static and Animated

Pat. No. D662,945 and D663,317 (NIKE)





Example Animated GUI D643,850 (Microsoft)



Example Animated GUI D687,047 (Nest Labs)

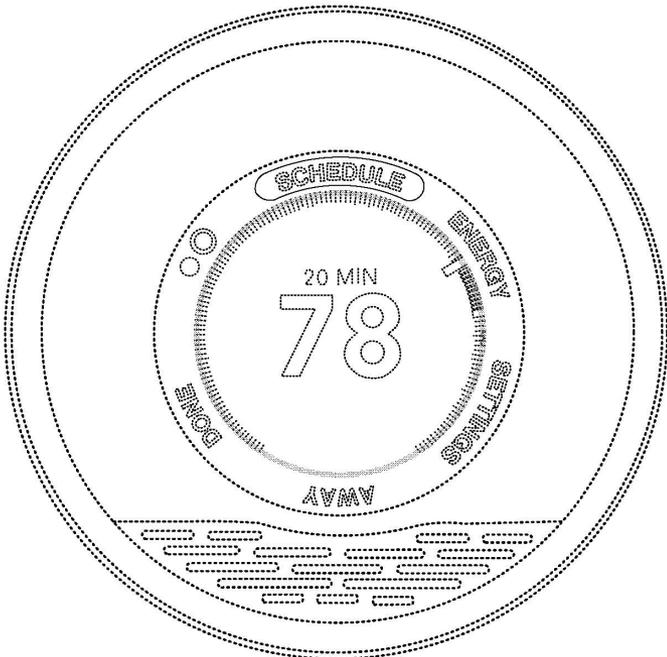
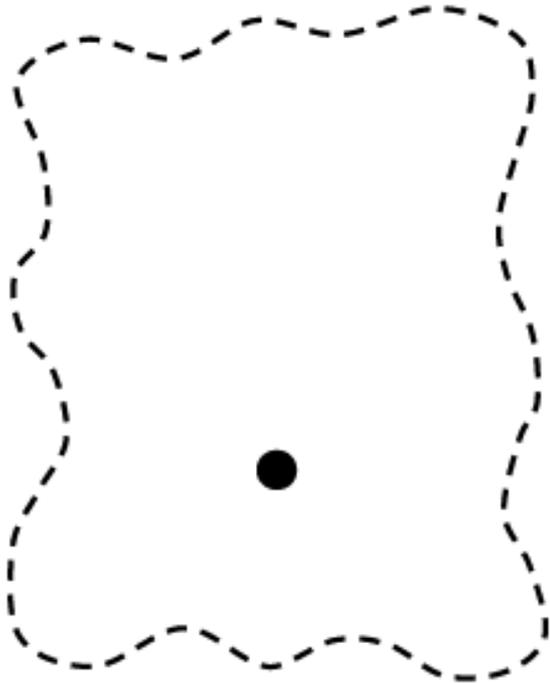


FIG. 1

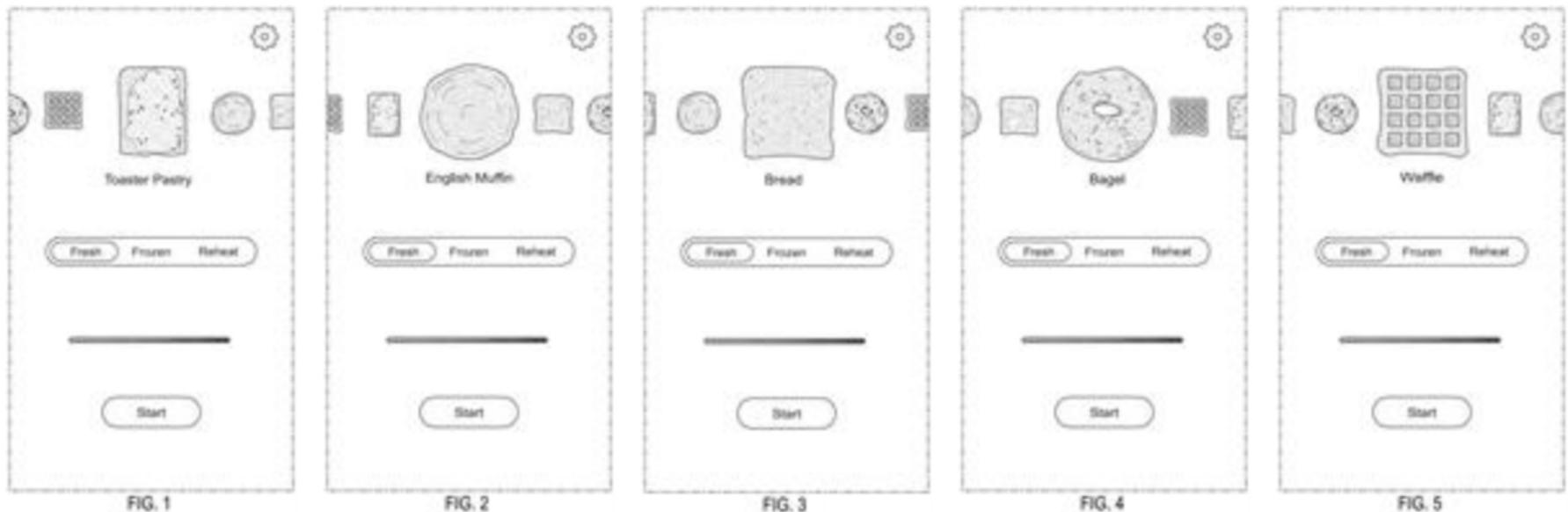
Wait Cursors/Loading Routines/Selectors D656954 and D644,661 (Microsoft)



Animated and Multiple Embodiments are NOT the Same

US D926,206 - Revolution Cooking LLC

- One approach covers the appearance with a dynamic change
- The other covers static variants with benefits and drawbacks



Animated and Multiple Embodiments are NOT the Same

US D922403 - Samsung

- Here both animated but multiple embodiments

Embodiment 1



Embodiment 2

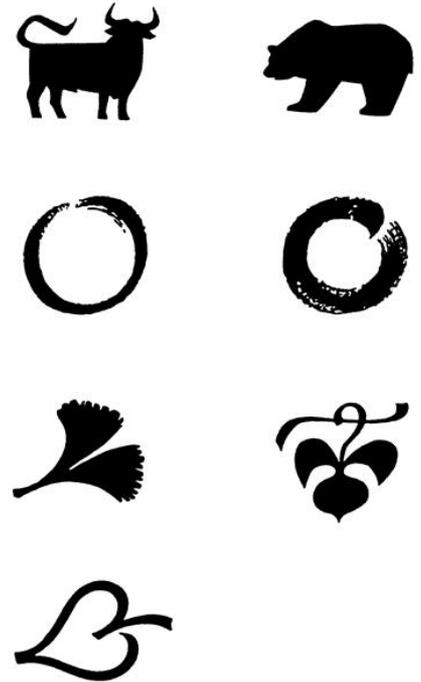


Font Examples - Reading, Fanciful, and Symbols

A B C D E F G H I J
K L M N O P Q R S T
U V W X Y Z
a b c d e f g h i j
k l m n o p q r s t
u v w x y z
0 1 2 3 4 5 6 7 8 9
! " # \$ % & ' () *
+ , . / : ; < = > ?
@

A B C D E F G
H I J K L M N O
P Q R S T U V
W X Y Z 1 2 3 4
5 6 7 8 9 0

a b c d e f g h i
j k l m n o p q r s t
u v w x y z



Emerging Technologies

→ How to Protect Future Designs

- The US has a design for an “article of manufacture” requirement in Section 171
 - *Europe does not*
- What kinds of designs are we starting to see and what will we see in the future?
 - Virtual Reality
 - Augmented Reality
 - Projected designs
- Know the law and make new law

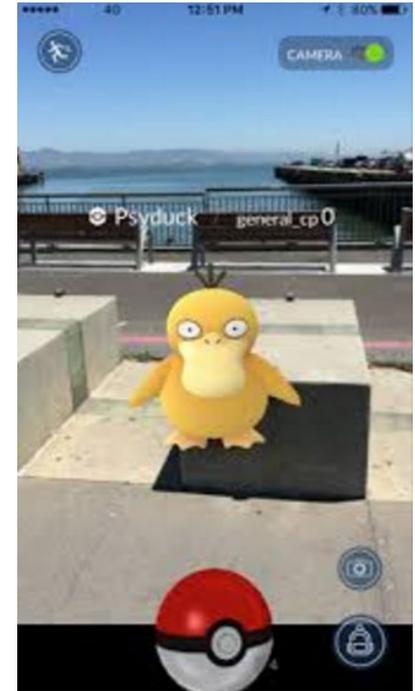
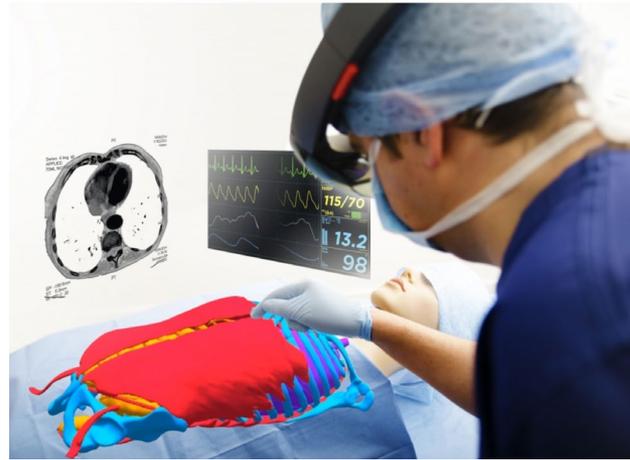


AR and VR Become More Mainstream

- VR: is an artificial, computer-generated simulation or recreation of a real life environment or situation. It immerses the user by making them feel like they are experiencing the simulated reality firsthand.
- Replaces your reality with a new one.
- AR: layers computer-generated enhancements atop an existing reality in order to make it more meaningful through the ability to interact with it.
- Takes your current reality and adds to it.



AR and VR Become More Mainstream



Virtual 3D GUI – US D797,767

Display system with a virtual three-dimensional graphical user interface

Microsoft Corporation

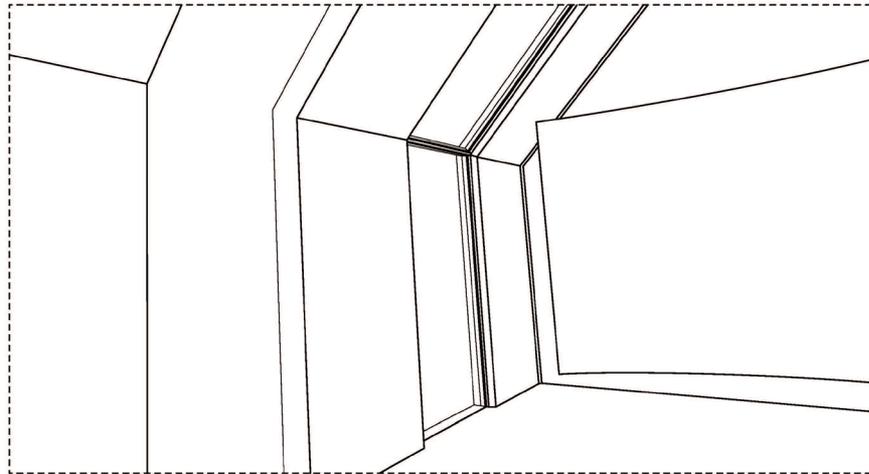
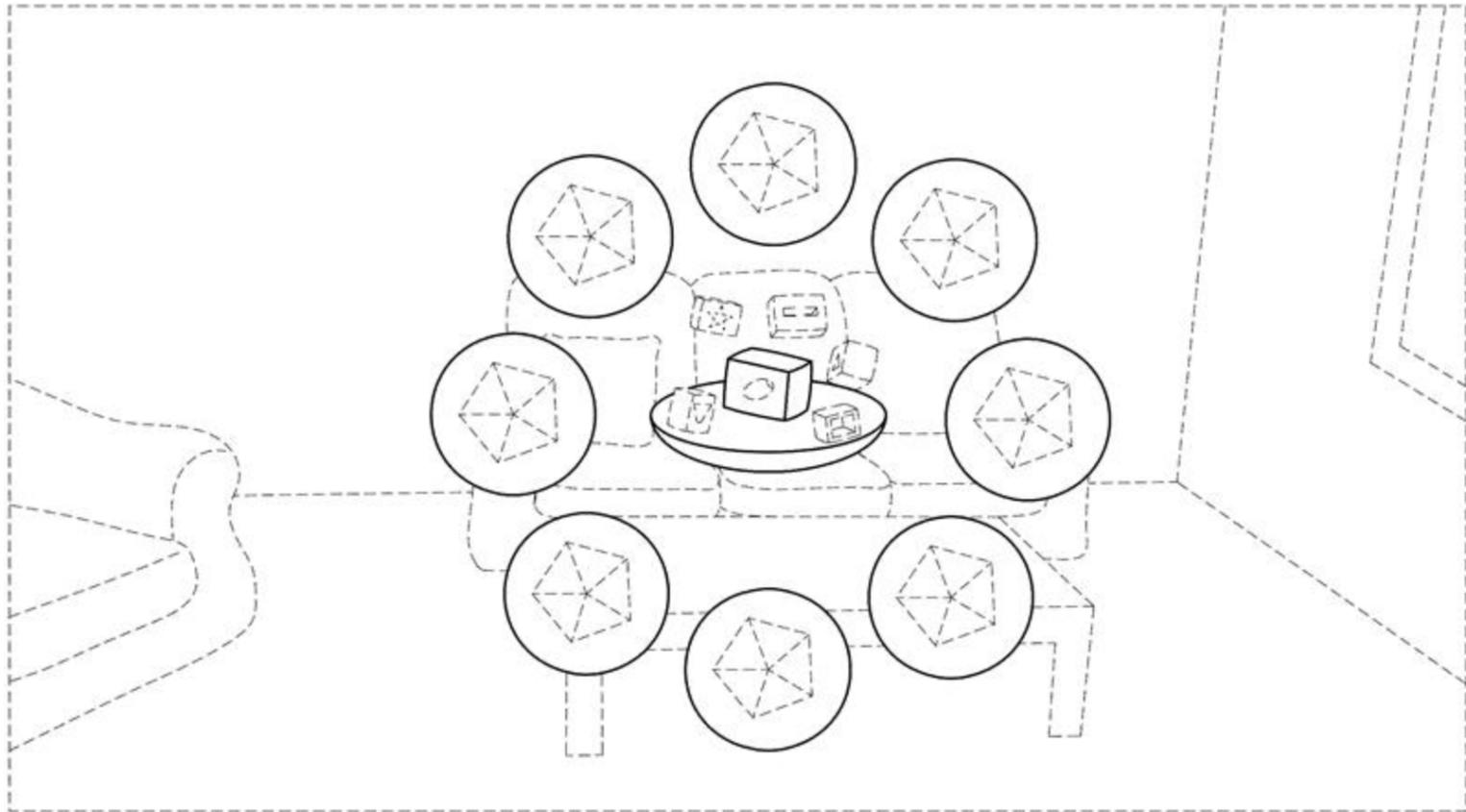


FIG. 1

AR/VR GUI – US D926,793

Display panel or portion thereof with graphical user interface
Magic Leap Corporation



AR/VR GUI – US D922,427

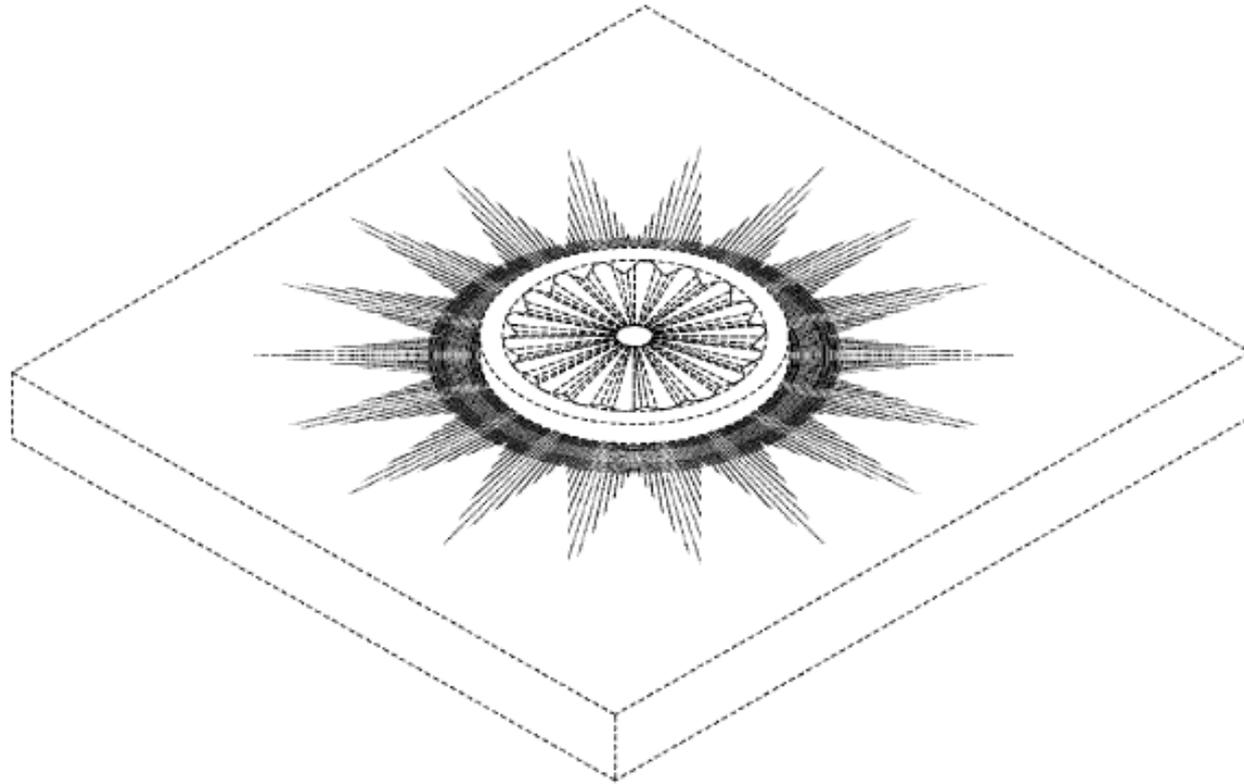
Display device with animated graphical user interface
Facebook



Projected Designs Seattle Museum of Pop Culture

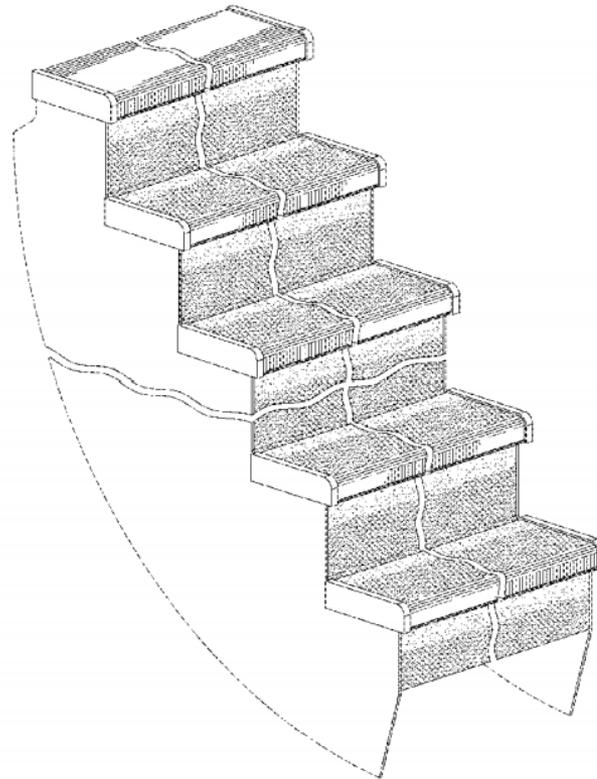


Projected Design– US D609947
Osram Sylvania, Inc.
Tabletop with an Applied Pattern of Projected Light



Projected Design– US D861,574 BOMBARDIER INC.

Aircraft stair having a lighting pattern projected onto it





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