The Classification of Ornamental Designs in the United States Patent Classification System

Abstract: Industrial design is the professional discipline that creates pleasing, aesthetic shapes and appearances for mass-produced articles and consumer goods. This profession has grown in importance in recent decades as the science of introducing innovative ornamental designs for mass-produced articles has developed into a highly successful marketing tool. Businesses have recognized that profits can be enhanced by the introduction of improved ornamental designs. Consequently, in the modern marketplace an enormous variety of innovative ornamental designs is available to consumers for practically all articles of mass manufacture including vehicles, furniture, packaging, communication devices, luggage and apparel. As the availability of consumer goods becomes commonplace throughout the world, the profession of industrial design is becoming increasingly active and important.

The significance of innovative ornamental designs to the field of business commerce has been long-recognized by intellectual property offices throughout the world. Most governments have established statutory means that permit designers to protect new ornamental designs. However, as large numbers of ornamental designs are granted statutory protection, intellectual property offices are faced with the challenge of organizing the images of these designs in a format that permits efficient access and decimation. The classification of ornamental images is a difficult problem: as the number of new designs produced each year grows, efficient access to protected designs has become an increasingly complicated task.

The United States Patent and Trademark Office (USPTO) has provided statutory protection for ornamental designs since 1844. To date, more than 400,000 industrial designs have been granted patented statutory protection which is known as a design patent. In order to permit efficient storage and retrieval to the collection of design patents, the USPTO has developed a classification system that is directed to ornamental appearance of industrial designs.

1. Purpose of Design Patent Classification:

   The Design Classification Schedule of the United States Patent Classification System provides a structured organization for design patents and other documents relevant to a design patent search. The goal of design patent classification is to provide efficient access to all design patents based upon the following principles:
   - function or nature of the design claimed
   - specific functional feature
   - ornamental appearance or form

   The classification of design patents generally does not consider the specific environment or specific application in which a patented ornamental design may be used. For example, patented designs for seating are classified in Class D6 - Furnishings even though seating may be used outdoors, in homes, the workplace, vehicles, and other places.

2. The Classification Schedule:

   Class: U.S. design patents are broadly organized into groups of subject matter called "classes". There are 33 classes of subject matter in the USPC directed solely to ornamental designs. Each class has a written definition. Each class is designated with a number and a title that describes the subject matter the class contains. For example, the collection of design patents for furniture is titled "Class D6 - Furnishings".
The following is a list of the 33 design classes:

Class D1  Edible Products  
Class D2  Apparel and Haberdashery  
Class D3  Travel Goods, Personal Belongings, and Storage or Carrying Articles  
Class D4  Brushware  
Class D5  Textile or Paper Yard Goods; Sheet Material  
Class D6  Furnishings  
Class D7  Equipment for Preparing or Serving Food or Drink Not Elsewhere Specified  
Class D8  Tools and Hardware  
Class D9  Packages and Containers for Goods  
Class D10  Measuring, Testing or Signaling Instruments  
Class D11  Jewelry, Symbolic Insignia, and Ornaments  
Class D12  Transportation  
Class D13  Equipment for Production, Distribution, or Transformation of Energy  
Class D14  Recording, Communication, or Information Retrieval Equipment  
Class D15  Machines Not Elsewhere Specified  
Class D16  Photography and Optical Equipment  
Class D17  Musical Instruments  
Class D18  Printing and Office Machinery  
Class D19  Office Supplies; Artists' and Teachers' Materials  
Class D20  Sales and Advertising Equipment  
Class D21  Games, Toys and Sports Goods  
Class D22  Arms, Pyrotechnics, Hunting and Fishing Equipment  
Class D23  Environmental Heating and Cooling, Fluid Handling and Sanitary Equipment  
Class D24  Medical and Laboratory Equipment  
Class D25  Building Units and Construction Elements  
Class D26  Lighting  
Class D27  Tobacco and Smokers' Supplies  
Class D28  Cosmetic Products and Toilet Articles  
Class D29  Equipment for Safety, Protection and Rescue  
Class D30  Animal Husbandry  
Class D32  Washing, Cleaning or Drying Machines  
Class D34  Material or Article Handling Equipment  
Class D99  Miscellaneous

Subclass: Each of the 33 design classes is further "classified" into specific types of subject matter called "subclasses". Subclasses permit efficient access to groups of specific types of ornamental designs. The title of a subclass indicates the specific subject matter the subclass contains. Some design subclasses have written definitions.

3. Schedule Organization:
Various types of subclasses are used to organize design patents within a class schedule:

• **Main line subclasses:** Main line subclasses are used to broadly organize the subject matter of a class into general types. Main line subclasses have titles in all capitalized letters and are not indented. All main line subclasses have definitions.

• **Indented subclasses:** Indented subclasses are subdivisions of subject matter organized, or indented, under a main line subclass. Only the first letter of an indented subclass is capitalized. Dots are used before the subclass title to reference the level of indentation. The greater the number of dots or indents, the more specific the subject matter contained in the subclass.

• **Coordinate Subclasses:** Subclasses positioned at the same level of indentation are referred to as coordinate subclasses, provided that a superior subclass is not positioned between these subclasses.
For example, in *Class D6 – Furnishings* the subject matter of the class is classified by function into seven main line subclasses for various types of furnishing under the class definition:

- MIRROR, FRAME, PICTURE MOUNT or EASEL TYPE SUPPORT
- APPAREL SUPPORT
- FURNITURE, FESTANDING SUPPORT or FRAME THEREFORE
- ARTICLE SUPPORT, HOLDER or DISPENSER NOT ELSEWHERE SPECIFIED
- WINDOW COVERING
- CARPET, FLOOR MAR or RUG
- HOUSEHOLD LINEN, MATTRESS or CUSHION

Indented under each main line subclass are arrays of indented subclasses. These indented subclasses contain various types of subject matter as indicated by the subclass titles. Some of the indented subclasses have arrays of subclasses indented beneath them. The greater the number of “dots” shown preceding the subclass title, the more specific the classification.

A portion of the classification schedule for *Design Class D6* is shown below as an example of how indented subclasses are used within a design schedule:

**CLASS D6 **

**FURNISHINGS:**

334 . Seating unit
335 . . Combined or convertible
336 . . With work surface or storage unit
337 . . . Plural facing seats
338 . . . Work surface positioned at the front of seat
339 . . . . High chair for juvenile
340 . . . . Straddle type
341 . . . . Asymmetrical attachment, e.g., offset art, etc.
342 . . . . Seat attached at front
343 . . . . With apparel support, i.e., “valet”
344 . . . Swinging or rocking
345 . . . . Simulative
346 . . . . Plural facing seats
347 . . . . Suspended
348 . . . . Curved runner contacts floor
349 . . . . Hassock, ottoman, stool or bench, i.e. without armrest and backrest (14)
350 . . . . Stepped
351 . . . . . Simulative (15)
352 . . . . Three or more repeats or uniform pattern about axis
353 . . . . . Folding or adjustable
354 . . . . . Straddle type, e.g. saddle, etc.
355 . . . . . Backless
356 . . . . . Vehicle type
357 . . . . . Oppositely facing plural seats
358 . . . . . Simulative
359 . . . . . Animate
360 . . . With integral occupant leg or foot rest
361 . . . . . Contiguous relationship with seat, (i.e., chaise lounge type)
362 . . . . . Cantilevered form or attached to vertical surface
363 . . . . . Triangular or three-point support
364 . . . . . Unitary support column or inset pedestal type
365 . . . . . Footed
366 . . . . Three or more radiating spokes i.e., spider
367 . . . . Provision for adjustment
368 . . . . . Collapsible or folding
369 . . . . . Interlaced or lashed components, e.g., wicker, rattan or bamboo, etc.
370 . . . . Plural parallel slats forming seat or back
371 . . . . Front-to-rear runner forms base
The array of subclasses starting with D6/334 through D/381 provides an organized arrangement of patented ornamental designs for seating that is comprehensive. The array contains all design patents directed to the ornamental designs for seating. Included in these subclasses are utility patents that may be pertinent to ornamental design indicated in the subclass title.

Note that subclass D6/344 is titled *Swinging or rocking*. This subclass, and the subclasses indented under it (D6/345 through D6/348) contain various types or classifications of swinging or rocking type seating based on ornamental appearance or a functional feature. In order for a search for an ornamental design for a *rocking chair* to be complete, all design patents classified in D6/345 through D6/348 must be considered. However, if a design includes additional ornamental features, such as animate simulation or cast or forged metal, other subclasses (in this case D6/359 & D6/376) should be included in the search even though these subclasses are not directed to *swinging or rocking* type seating. If an ornamental design for *seating* is to be considered complete all design patents classified in subclasses D6/334 through D6/381 must be considered.

4. Relationship to Classes of Utility Patents:

There is no relationship between the titles and numerical designations used in design patent classification schedules and those used for utility classes. A directory of utility and design titles and subject matter can be found in the Index to the US Patent Classification System.

It should be noted, however, that the material contained in design subclasses is related to the disclosure classified in certain utility subclasses. If there is a clear relationship between a design subclass and a utility subclass, it may be noted in the “See or Search Class” notes found after the definition for the design class or subclass.

5. Design Patent Titles:

Titles of design patents are important for understanding the nature of the claimed design; however, design titles are generally an unreliable basis for the classification of design patents into specific subclasses. Titles found on design patents may be overly broad or use terms that are not found in the design classification schedules. For example, some design patents classified as “rocking chair” have the title “seat” or “chair”. Accordingly, it is more important in organizing a classification search to note the words or terms used in the title of a design subclass and its definition rather than the titles of the individual design patents contained in the subclass.

6. Hierarchy:

The principle of hierarchy used to classify utility patents applies to the classification of Design Patents. Design Patents are placed as original documents (OR) in the first Design Class of pertinent subject matter and subsequently in the first pertinent subclass or indented subclass of the Design Class. Design patents that have been placed in one class as an original
document (OR) will not appear in other design or utility subclasses unless they have been classified as supplemental or cross-reference documents (XR).

For example, Design Patents for airplanes are properly classified as original (OR) documents in Design Class D12 - Transportation. However, if a particular design for an airplane is considered to be a useful reference that should be included with the collection of industrial designs for toy airplanes, a cross-reference document (XR) may be classified in one or more subclasses for toy airplanes in Design Class D21 - Games, Toys, Exercise Equipment and Sports Goods. Conversely, if a design patent for a toy airplane is believed to be pertinent or similar in appearance to designs for a genuine airplane, a cross-reference document (XR) may be classified in Design Class D12. The goal of Design Classification is to provide access to patent documents for a search for a specific ornamental appearance in a structure that is as precise, efficient and comprehensive as possible.

7. Unique Features of the Classification of Design Patents:

Exclusion Notes are unique to Design Classification and are used to clarify the subject matter contained in each Design Class. Exclusion Notes are found at the beginning of each Design Class and must be considered when planning a search for a particular industrial design. A review of the Exclusion Notes will insure that certain subject matter has not been excluded and classified in another Design Class.

For example, in the Exclusion Notes for Class D6 - Furnishings, ornamental designs for wheelchairs have been excluded and classified in Class D12 - Transportation. Another example of the use of Exclusion Notes can be found in Class 10 - Measuring, Testing or Signaling Instruments. Design Patents for clocks are found in Design Class 10. However, the Exclusion Notes indicate that design patents for clocks combined with a radio or television are classified in Class D14 - Recording, Communication or Information Retrieval Equipment. The Exclusion Notes further indicate that Design Patents for clocks combined with a sign or display equipment are classified in Class D20 - Sales and Advertising Equipment.

Also unique to the Design Classification Schedule is the use of Search Notes placed after some subclass titles and/or at the end of each Design Class Schedule. Search Notes are used to explain the subject matter found in a specific subclass.

For example, in Design Class D6 - Furnishings, subclass D6-344 is directed to designs for “Seating unit”. A Search Note (7) has been added in parenthesis immediately following the subclass and refers to an explanatory note found at the end of the Class D6 classification schedule. This Note (7) explains that for furniture leg, see subclass 495+. Search Note (7) points out that although the design patents classified in D6-334 and its indented subclasses includes ornamental designs for seating that includes the disclosure for seating legs, separate subclasses for designs for furniture legs only, are classified in D6-495 and its indented subclasses.

In some cases, a short search note is placed immediately following the subclass title to further explain the subject matter found in the subclass. For example:

D6-349 . Hassock, ottoman, stool or bench, i.e. without armrest and backrest (14)

The note i.e., without armrest and backrest is used to further clarify the nature of the subject matter classified in this particular subclass. To further explain the subject matter of this subclass, note (14) is added. Note (14) is found at the end of the Design Class D6 Schedule and explains: For bench type seating with an armrest, see subclass 355. For straddle type seat, see subclass 354.
8. "Simulative" Designs:

Unique to Design Patent Classification subclass titles is the term *simulative*. This term is used to refer to design patents that have an appearance that looks like or simulates the appearance of another article either by the use of applied ornamentation or in three-dimensional form. This term may also indicate that a design includes ornamentation or an ornamental pattern applied to the surface of the design.

For example, *Design Class - D1 - Edible Products* contains an array of subclasses under the heading of *Simulative* (see D1-107 through D1-115). These subclasses contain patented designs for edible food products that simulate the appearance of other articles either in general shape, or with applied ornamentation. D1-113 contains edible food products that simulate vehicles or parts of vehicles, such as a "car" or a "vehicle wheel". D1-107 contains patented designs for edible products that simulate the appearance of animals. Indented under this subclass is D1-108, which contains designs for edible food products that simulate the human body. Indented under D1-108 is D1-109 which contains patented designs for edible products which simulate a "[Human] Head or other appendage."

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Class D1   EDIBLE PRODUCTS

106 SIMULATIVE
107 . Animate
108 . Humanoid
109 . . Head or other appendage
110 . . Quadruped
111 . . Marine life
112 . . Heart shaped
113 . . Vehicle of component thereof
114 . . Alpha or numeric
115 . . Plant life
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9. Cross-Reference Art Collections and Digests:

Cross-Reference Art Collections are collections of design and utility patents for subject matter that is not specifically provided for in a particular class. This subject matter is generally very diverse, broad in scope and includes industrial designs that have multiple functions. Cross-Reference Art Collections provide an overview of certain subject matter and should be included in a comprehensive search. Cross-Reference Art Collections are found at the end of some design schedules for Class D3, Class D7, D16 and D21.

For example, at the end of the schedule for *Class D3 - Travel Goods, Personal Belongings, and Storage or Carrying Articles*, Cross-Reference Art Collections are provided for *Briefcase, Tool Box or Tackle Box* and *Cosmetic Case*. There are no subclasses for this subject matter in the Design Classification Schedule since the subject matter is too diverse in scope to be classified in a single subclass or array of subclasses within the hierarchy of the class schedule. A review of Cross-Reference Art Collections provides a perspective of the specified type of subject matter and can be used to locate Design Patents pertinent to a particular search. Each document in the collection contains an original classification in the USPC, which can be used to locate additional subject matter with a similar specific function or ornamental appearance.

Design Digests are informal collections of design patents, utility patents and non-patent literature that can be found only in the Examiner Search Room in the Patent and Trademark Office or on the APS search engines. These Digests have been compiled by patent examiners as collections of industrial designs pertinent to a specific art and provide a "shortcut" to a comprehensive search. All patents in a Digest are classified as original documents in the appropriate Design and Utility Classes but are not available as a unitary search in a specific subclass. The only design schedule that includes digests is Class D8.
For example, an array of Handle Digests is found at the end of Class D8 - Tools and Hardware. These Digests contain collections of different types of patented handles that are found throughout the Design and Utility Patent Classification Schedules have been collected in the Handle Digests for the convenience of examiners searching tool handles.

Note that no design patent may issue as an original reference document (OR) in a Cross-Reference Art Collection or a Digest.

10. Placement Rules for the Classification of Design Patents:

It is critical for each issuing design patent to be correctly classified in order to permit accessibility to examiners and others doing a classification search.

Design patents are classified in the Classification Schedule as original documents (ORs) in the first design class that contains subject matter most pertinent or “best fit” with respect to the subject matter claimed. Within the design class the patent is classified in the first pertinent subclass or indented subclass that describes the specific function, intended use or ornamental features of the design claimed. If a patent does not meet the criteria embodied in any particular subclass title, the patent is placed in general or broad subclass of the particular class.

If the subject matter of any design patent is considered pertinent to an additional subclass or subclasses, cross-reference (XR) copies of the patent may be included at the discretion of the design classifier or primary examiner.

Author’s note: Further information about the United States Patent Classification System can be obtained at: http://www.uspto.web