

Knobbe Martens Webinar Series: Strategic Considerations in Patent Subject Matter Eligibility Under Section 101 – Revised Guidance Examples

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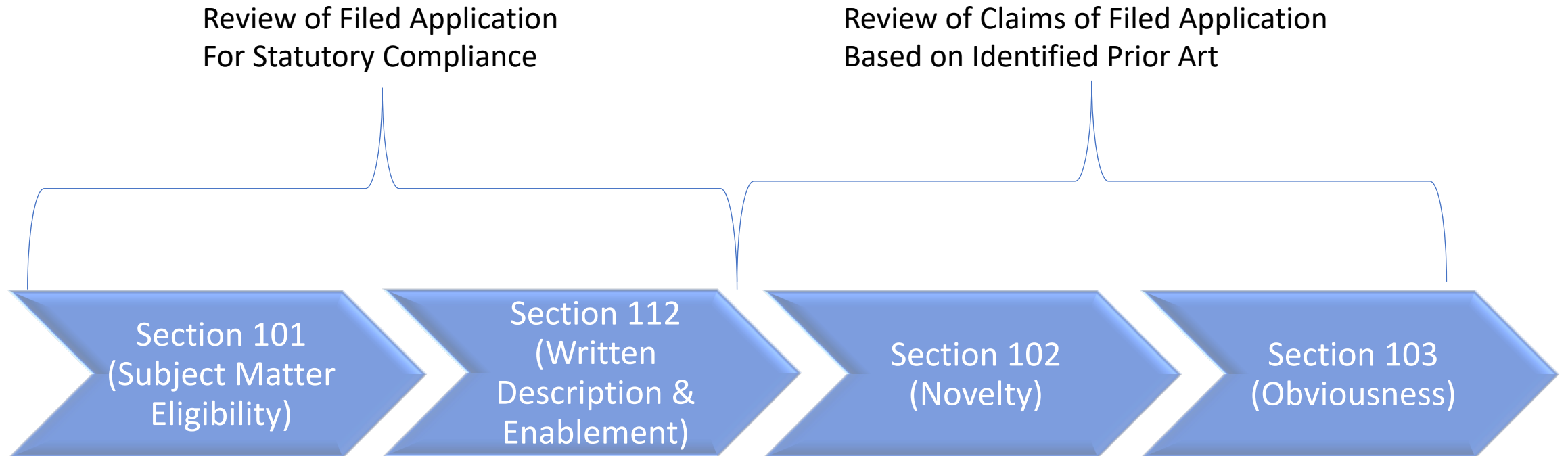
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Statutory Requirements

Statutory Requirements – Patentability of Inventions



Statutory Requirements – Patentability of Inventions



35 U.S. Code §101

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Examination of Application – USPTO’s Duty to Establish a Prima Facie Case

- Step 2A – Prong One
 - The rejection should identify the judicial exception (i.e., abstract idea enumerated in Section I of the 2020 PEG, laws of nature, or a natural phenomenon) by referring to what is recited (i.e., set forth or described) in the claim and explaining why it is considered to be an exception (Step 2A Prong One).
 - There is no requirement for the examiner to provide further support, such as publications or an affidavit or declaration under 37 CFR 1.104(d)(2), for the conclusion that a claim recites a judicial exception.
- Step 2A – Prong Two
 - The rejection should identify any additional elements recited in the claim beyond the judicial exception and evaluate the integration of the judicial exception into a practical application by explaining that 1) there are no additional elements in the claim; or 2) the claim as a whole, looking at the additional elements individually and in combination, does not integrate the judicial exception into a practical application using the considerations set forth in the 2020 PEG (Step 2A Prong Two).
- Step 2B – Significantly More
 - The examiner should explain why the additional elements, taken individually and in combination, do not result in the claim, as a whole, amounting to significantly more than the exception (Step 2B).

Revised Guidance Example Claims

Example 43 – Treating Kidney Disease

CLAIMS

1. A treatment method comprising:
 - (a) calculating a ratio of C11 to C13 levels measured in a blood sample from a patient diagnosed with Nephritic Autoimmune Syndrome Type 3 (NAS-3) to identify the patient as having a non-responder phenotype;
 - (b) administering a treatment to the patient having a non-responder phenotype.
2. The method of claim 1, wherein the treatment is a non-steroidal agent capable of treating NAS-3.
3. The method of claim 1, wherein the treatment is rapamycin.
4. The method of claim 1, wherein the treatment is a course of plasmapheresis.
5. A treatment method comprising administering rapamycin to a patient identified as having Nephritic Autoimmune Syndrome Type 3 (NAS-3).

Example 44 – Denveric Acid

CLAIMS

1. A dosage unit comprising denveric acid in a container.
2. The dosage unit of claim 1, wherein the container is a wearable delivery device having a flexible patch-shaped housing, a needle assembly mounted on one side of the housing, a reservoir located inside the housing in which the denveric acid is stored, a dosage control button mounted on the opposite side of the housing from the needle assembly, and a delivery valve for dispensing a selected dosage of denveric acid from the reservoir to the needle assembly.
3. The dosage unit of claim 1, wherein the denveric acid is an intermediate-acting denveric acid.
4. The dosage unit of claim 1, further comprising protamine that is mixed with the denveric acid in the container in an amount of 0.75 mg to 1.5 mg protamine per every mg of denveric acid.

Example 45 – Controller for Injection Mold

CLAIMS

1. A controller for an injection molding apparatus having a mold defining a cavity for receiving uncured polyurethane that is heated to form a molded article during a cycle of operation of the apparatus, the controller configured to:
 - (a) repeatedly obtain measurements of the temperature of a mold;
 - (b) calculate an extent of curing completion of polyurethane in the mold using the obtained temperatures and the Arrhenius equation; and
 - (c) determine the extent that the polyurethane is cured as a percentage.
2. The controller of claim 1, which is further configured to:
 - (d) send control signals to the injection molding apparatus once the polyurethane has reached a target percentage, the control signals instructing the apparatus to open the mold and eject the molded polyurethane from the mold.
3. A system comprising the controller of claim 1 connected to a means for temperature measuring that repeatedly measures the temperature of the mold.
4. A controller for an injection molding apparatus having a mold defining a cavity for receiving uncured polyurethane that is heated to form a molded article during a cycle of operation of the apparatus, the controller configured to:
 - (a) send a control signal to the injection molding apparatus to regulate injection of uncured polyurethane into the mold, and to heat the mold to a target temperature to cure the polyurethane;
 - (b) repeatedly obtain temperature measurements of the mold;
 - (c) compare the obtained temperatures to a target temperature; and
 - (d) maintain temperature of the mold within two degrees of the target temperature by sending a control signal to the apparatus to selectively heat or cool the mold when the obtained temperature of the mold is more than two degrees different than the target temperature.

Example 46 – Livestock Management

CLAIMS

1. A system for monitoring health and activity in dairy livestock animals comprising:
 - a memory;
 - a display; and
 - a processor coupled to the memory programmed with executable instructions, the instructions including
 - a livestock interface for obtaining animal-specific information, wherein the animal-specific information comprises animal identification data and at least one of body position data, body temperature data, feeding behavior data, and movement pattern data; and
 - a monitoring component for
 - (a) comparing the obtained animal-specific information with animal information from a herd database to verify an animal's identity, and
 - (b) analyzing the obtained animal-specific information to identify whether the animal is exhibiting an aberrant behavioral pattern as compared to past behavior of the animal, and
 - (c) displaying the analysis results for the animal on the display.
2. The system of claim 1, wherein the system further comprises
 - a feed dispenser that is connected to a feed and supplement supply and is operable to dispense individualized amounts of feed and optional supplements, and
 - wherein the monitoring component is further configured for
 - (d) automatically sending a control signal to the feed dispenser to dispense a therapeutically effective amount of supplemental salt and minerals mixed with feed when the analysis results for the animal indicate that the animal is exhibiting an aberrant behavioral pattern indicative of grass tetany.

Example 46 – Livestock Management

3. A method for monitoring health and activity in dairy livestock animals comprising:

- (a) causing a herd of livestock animals to enter a sorting gate that is automatically operable, wherein each animal in the herd is equipped with an animal sensor having a radio frequency transponder,
- (b) for a particular animal in the herd, obtaining, by a radio frequency reader mounted on or near the sorting gate, animal-specific information from the animal sensor when the animal sensor is within proximity to the radio frequency reader, the animal-specific information comprising animal identification data and at least one of body position data, body temperature data, feeding behavior data, and movement pattern data,
- (c) analyzing, by a processor, the obtained animal-specific information from step (ii) with respect to animal information stored in a herd database to identify the animal and to determine whether the animal is exhibiting an aberrant behavioral pattern as compared to the past behavior of the animal,
- (d) automatically operating the sorting gate, by the processor sending a control signal to the sorting gate to route the animal into a holding pen when the analysis results from step (iii) for the animal indicate that the animal is exhibiting an aberrant behavioral pattern, and by the processor sending a control signal to the sorting gate to permit the animal to freely pass through the sorting gate when the analysis results for the animal indicate that the animal is not exhibiting an aberrant behavioral pattern, and
- (e) repeating steps (b) through (d) for each animal in the herd.

4. A system for monitoring health and activity in a herd of dairy livestock animals comprising:

a memory;

a processor coupled to the memory programmed with executable instructions, the instructions including a livestock interface for obtaining animal-specific information for a plurality of animals in the herd, wherein the animal-specific information comprises animal identification data and at least one of body position data, body temperature data, feeding behavior data, and movement pattern data; and

a herd monitor including (a) a radio frequency reader for collecting the animal-specific information from a plurality of animal sensors attached to the animals in the herd when the animal sensors are within proximity to the radio frequency reader, each animal sensor having a radio frequency transponder, and (b) a transmitter for transmitting the collected animal-specific information to the livestock interface.

Example 39 – Method for Training a Neural Network for Facial Detection

Claim

A computer-implemented method of training a neural network for facial detection comprising:

- (a) collecting a set of digital facial images from a database;
- (b) applying one or more transformations to each digital facial image including mirroring, rotating, smoothing, or contrast reduction to create a modified set of digital facial images;
- (c) creating a first training set comprising the collected set of digital facial images, the modified set of digital facial images, and a set of digital non-facial images;
- (d) training the neural network in a first stage using the first training set;
- (e) set for a second stage of training comprising the first training set and digital non-facial images that are incorrectly detected as facial images after the first stage of training; and
- (f) training the neural network in a second stage using the second training set.

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Representation can be initiated only upon completion of our standard new client/new matter process, including completion of a conflicts check, execution of an engagement agreement and payment of any applicable retainer.

These discussions are based solely upon nonconfidential information you provided. It is our understanding that you have not provided us with any confidential information and will not do so until representation is initiated.

Example 42 – Method for Transmission of Notifications When Medical Records Are Updated

Claim 1:

A method comprising:

- (a) storing information in a standardized format about a patient's condition in a plurality of network-based non-transitory storage devices having a collection of medical records stored thereon;
- (b) providing remote access to users over a network so any one of the users can update the information about the patient's condition in the collection of medical records in real time through a graphical user interface, wherein the one of the users provides the updated information in a non-standardized format dependent on the hardware and software platform used by the one of the users;
- (c) converting, by a content server, the non-standardized updated information into the standardized format,
- (d) storing the standardized updated information about the patient's condition in the collection of medical records in the standardized format;
- (e) automatically generating a message containing the updated information about the patient's condition by the content server whenever updated information has been stored; and
- (f) transmitting the message to all of the users over the computer network in real time, so that each user has immediate access to up-to-date patient information.

Example 42 – Method for Transmission of Notifications When Medical Records Are Updated

Claim 2:

A method comprising:

- (a) storing information about a patient's condition in a plurality of network-based non-transitory storage devices having a collection of medical records stored thereon;
- (b) providing access, by a content server, to users so that any one of the users can update the information about the patient's condition in the collection of medical records, and;
- (c) storing the updated information about the patient's condition in the collection of medical records in the plurality of network-based non-transitory storage devices.

Example 37 – Relocation of Icons on a Graphical User Interface

Claim 1:

A method of rearranging icons on a graphical user interface (GUI) of a computer system, the method comprising:

- (a) receiving, via the GUI, a user selection to organize each icon based on a specific criteria, wherein the specific criteria is an amount of use of each icon;
- (b) determining, by a processor, the amount of use of each icon over a predetermined period of time; and
- (c) automatically moving the most used icons to a position on the GUI closest to the start icon of the computer system based on the determined amount of use.

Claim 2:

A method of rearranging icons on a graphical user interface (GUI) of a computer system, the method comprising:

- (a) receiving, via the GUI, a user selection to organize each icon based on a specific criteria, wherein the specific criteria is an amount of use of each icon;
- (b) determining the amount of use of each icon using a processor that tracks how much memory has been allocated to each application associated with each icon over a predetermined period of time; and
- (c) automatically moving the most used icons to a position on the GUI closest to the start icon of the computer system based on the determined amount of use.

Example 37 – Relocation of Icons on a Graphical User Interface

Claim 3:

A method of ranking icons of a computer system, the method comprising:

- (a) determining, by a processor, the amount of use of each icon over a predetermined period of time; and
- (b) ranking the icons, by the processor, based on the determined amount of use.

Example 40 – Claims 1 and 2 Compared

1. A method for adaptive monitoring of traffic data through a network appliance connected between computing devices in a network, the method comprising:
 - collecting, by the network appliance, traffic data relating to the network traffic passing through the network appliance, the traffic data comprising at least one of network delay, packet loss, or jitter;
 - comparing, by the network appliance, at least one of the collected traffic data to a predefined threshold; and
 - collecting additional traffic data relating to the network traffic when the collected traffic data is greater than the predefined threshold, the additional traffic data comprising Netflow protocol data.

2. A method for monitoring of traffic data through a network appliance connected between computing devices in a network, the method comprising :
 - collecting, by the network appliance, traffic data relating to the network traffic passing through the network appliance, the traffic data comprising at least one of network delay, packet loss, or jitter; and
 - comparing, by the network appliance, at least one of the collected traffic data to a predefined threshold.