

McCoy  
Russell LLP  
INTELLECTUAL PROPERTY LAW



# Prepositions - Back to Kindergarten -

Presented by Dan Evans

# Agenda

- Review definition of prepositions
- Identify problems that prepositions can create
- Example of possible interpretations of prepositions
- Mitigating the problem before filing
- Mitigating the problem after filing



# What is a preposition?

- “I know it when I see it” – Justice Stewart on prepositions
- Merriam Webster – “a function word that typically combines with a noun phrase to form a phrase which usually expresses a modification or predication”
- “[...] a word or group of words used before a [noun](#), [pronoun](#), or noun phrase to show direction, time, place, location, spatial relationships, or to introduce an object.” <sup>1</sup>
- “Prepositions in English are highly idiomatic.” <sup>1</sup>



# Common Prepositions

- of
- in
- to
- for
- with
- on
- at
- from
- by
- about
- as
- into
- like
- through
- after
- over
- between
- out
- against
- during
- without
- before
- under
- around
- next to (adjacent to)



# Potential Preposition Problems – A Trap

- Prepositions are ubiquitous and nondescript
  - Prepositions are easily overlooked due to being unremarkable
  - The ubiquity of prepositions creates a probability of going unnoticed
- Prepositions describe relationships and therefore can have large impacts on claims
- Practitioners often inherit applications and don't have budgets or time to write a perfect application
- Examiners can take advantage of Broadest Reasonable Interpretation to be unreasonable, which can lead to prosecution delays, increased costs, and abandonment
- If a practitioner and examiner overlook prepositions, there is a possibility of future invalidity



## Example - US 11,476,344

1. A low-contact resistance FET comprising: a substrate;

a gate-stack **on** the substrate, the gate-stack included a gate electrode, dielectric sidewall spacers **on** opposite lateral sides of the gate electrode and a gate dielectric configured to provide isolation between the substrate and the gate electrode;

a source cavity and a drain cavity etched **in** the substrate **on** opposite sides of the gate-stack;

a boron-doped buffer deposited **into** each of the source and drain cavities, the boron-doped buffer comprising at least 50% germanium with a doping concentration in excess of  $1e20 \text{ cm}^{-3}$ ;

germanium-silicon deposited **onto** the boron-doped buffers **into** the source and drain cavities so as to substantially fill the source and drain cavities; and

a boron-doped cap deposited **onto** the germanium-silicon deposited **onto** the boron-doped buffers.



## **Prosecution - Broadest Reasonable Interpretation (BRI)**

- Examiners can interpret prepositions to fit available prior art
- Examiners can use unusual definitions or change interpretations of prepositions to fit available prior art
- BRI must be “consistent” with the specification
  - Not merely “not inconsistent” with the specification
- BRI must be “reasonable”
- Interpretations are still from the perspective of one of ordinary skill in the art, in light of the specification



- The ubiquity of prepositions and the susceptibility of prepositions to broad interpretations leads to frequent battles between examiners and applicants
- In kindergarten, posters are used to help kids learn definitions of prepositions
- We will use a poster to demonstrate how an examiner can use BRI to interpret terms in ways that only a kindergartener would find “reasonable”



# Kindergarten Prepositions

## INVENTION



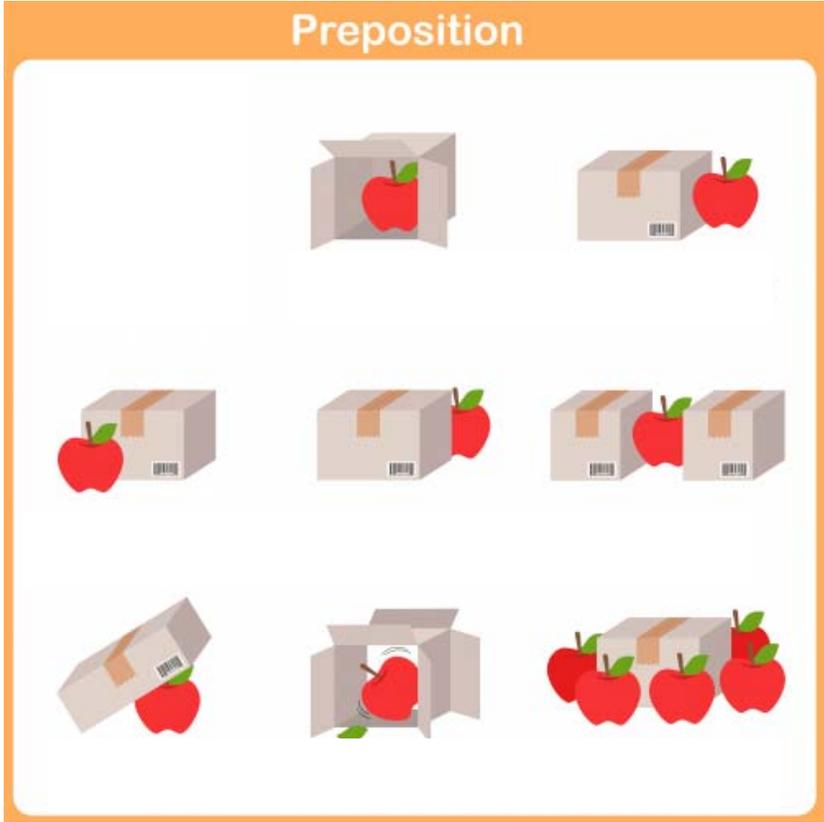
on

Claim 1:

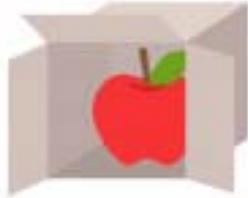
A system comprising:  
an apple; and  
a box, wherein the apple  
is **on** the box.



# Table of prior art – Kindergarten Poster



## Rejection 1



in

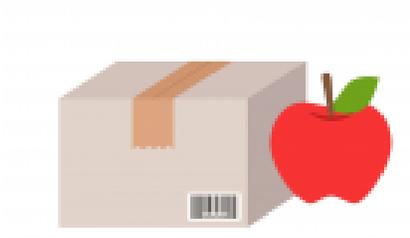
Claim 1:

A system comprising:  
an apple; and  
a box, wherein the apple  
is **on** the box.

The prior art shows an apple in a box.  
The apple is **on** the bottom inner surface  
of the box. Therefore, under BRI, claim 1  
is anticipated.



## Rejection 2



next to (beside)

Claim 1:

A system comprising:  
an apple; and  
a box, wherein the apple  
is **on** the box.

The prior art shows an apple next to a box. The apple is positioned **on** a side of an outer surface of the box. Therefore, under BRI, claim 1 is anticipated.



## Rejection 3



in front of

Claim 1:

A system comprising:  
an apple; and  
a box, wherein the apple  
is **on** the box.

The prior art shows an apple in front of a box. The apple is positioned **on** a front side of an outer surface of the box. Therefore, under BRI, claim 1 is anticipated.



## Rejection 4



**behind**

Claim 1:

A system comprising:  
an apple; and  
a box, wherein the apple  
is **on** the box.

The prior art shows an apple behind a box. The apple is positioned **on** a rear side of an outer surface of the box. Therefore, under BRI, claim 1 is anticipated.



## Rejection 5



under

Claim 1:

A system comprising:  
an apple; and  
a box, wherein the apple  
is **on** the box.

The prior art shows an apple under a box. The apple is **on** the bottom outer surface of the box. Therefore, under BRI, claim 1 is anticipated.



## Rejection 6



through

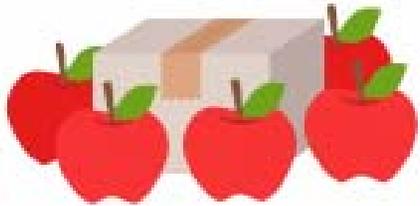
Claim 1:

A system comprising:  
an apple; and  
a box, wherein the apple  
is on the box.

The prior art shows an apple through a box. The apple is on the bottom inner surface of the box. Therefore, under BRI, claim 1 is anticipated.



## Rejection 7



around

Claim 1:

A system comprising:  
an apple; and  
a box, wherein the apple  
is **on** the box.

The prior art shows a plurality of apples around a box. At least one of the apples is **on** the outer side surface of the box. Therefore, under BRI, claim 1 is anticipated.



## Rejection 8



between

Claim 1:

A system comprising:  
an apple; and  
a box, wherein the apple  
is **on** the box.

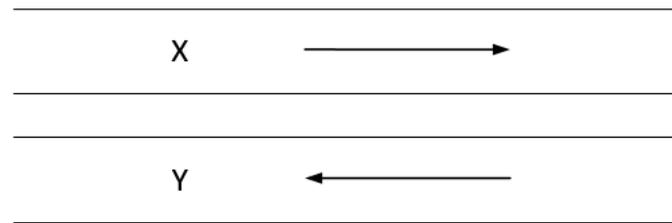
The prior art shows an apple between two boxes. The apple is **on** an outer side surface of at least one of the boxes. Therefore, under BRI, claim 1 is anticipated.



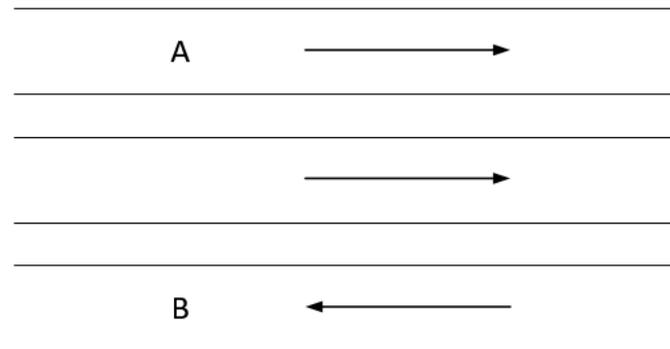
# Personal Example

- Inherited claims:
  - x is adjacent to y
- Rejection
  - A is adjacent to B
- Amendments
  - x is **immediately** adjacent to y
- New rejection
  - immediately adjacent is indefinite
  - A is adjacent to B
- New amendments
  - x **shares sidewall with** y

## Application

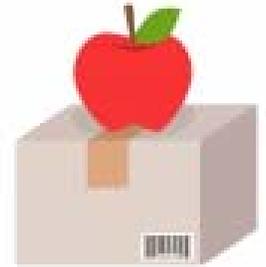


## Cited Art



# Preventing Problems

- Flag prepositions and try to anticipate broad interpretations
- Layer a specification and dependent claims with increasingly specific language
- Example:
  - The apple is on the box
  - The apple is positioned on the top of the box
  - A first portion of a bottom surface of the apple is positioned directly on and in face-sharing contact with a top outer surface of a top of the box, and a second portion of the bottom surface of the apple is positioned directly on and in face-sharing contact with tape that is wrapped from a side of the box to the top outer surface of the top of the box, where the apple is above the box relative to a direction of gravity



on





**on**

- Detailed figures can provide support for future amendments even if the specification doesn't explicitly support the amendments
- Using axes in figures can help support amendments even if the axes are not discussed in the specification
- Boilerplate language can reinforce support from the figures
  - “Figures are shown approximately to scale,”  
“direction of gravity is depicted as the vertical axis,”  
“surfaces depicted as contacting each other may be in direct contact,” define potentially relative terms such as “adjacent” and “proximate,” etc.
- Boilerplate language can provide specific definitions for commonly used prepositions. For ex. “the term ‘on’ may be used to refer to face-sharing contact.”



# Addressing Problems

- Rely on figures when specification does not explicitly support desired amendment
  - This can be particularly helpful with applications claiming priority to foreign applications
- Interviews can be helpful to draw out claim amendments from an examiner that the examiner will interpret as agreed upon
- Create prosecution history to clarify record regarding potentially dangerous interpretations



## **Other Uses for Prepositions**

- Prepositions can be used as a focal point for invalidity analysis of a patent
- Broad interpretation of prepositions can also be useful to prove infringement



# Cites

1.

<https://academicguides.waldenu.edu/writingcenter/grammar/prepositions>



