

Exam Number: _____

**VILLANOVA UNIVERSITY SCHOOL
OF LAW**

**Patent Law
Risch
Spring 2020**

Final Exam

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**VILLANOVA SCHOOL OF LAW
EXAMINATION IN PATENT LAW
10 HOURS**

Professor Risch

Spring 2020

INSTRUCTIONS (READ THEM ALL)

1. **Materials Permitted:** This is an OPEN book exam, with OPEN HARD DRIVE/OPEN NETWORK. **You may not receive help from any person.**
2. This exam consists of 10 pages, including the cover page. Please check to be sure your exam is complete and contains all pages.
3. Time allotted for the entire examination is 10 hours. This is a take-home exam. Thus, you have ten (10) hours from the time you download the exam to complete and upload the answer. If you are late, your grade will be reduced. If you experience technical difficulties, please follow registrar office directions or contact the registrar.
4. I recommend that you do not download the exam at a time when the due time will be outside of business hours of the law school.
5. **Note that the exam will be held until the 3L cutoff, but there may be make-up exam days. You must be careful not to disclose any details of the exam to your classmates or discuss any aspect of the exam (or your answer!) until after I post an announcement notifying you that you may do so.**
6. **This exam follows the honor code – despite being pass/fail. Do not discuss the exam with others and do not collaborate.**
7. **THIS EXAM INCLUDES A STRICT WORD LIMIT OF 4200 WORDS.** I am grading each exam all at once, so feel free to refer to a prior answer if relevant. NOTE: You do not have to use all of the words available – the questions can be answered in less space than allotted. **I will stop reading after the word limit is reached.**
8. Do not rely on page counts; you should count words using your word processor's "properties" menu item or in the bottom bar of your word processor. You may divide the word limit among the different questions however you wish.
9. Your exam must be typed, double spaced, in legible font, and on 8.5 x 11 paper size.
10. Use **only** your exam number. You may not use your name or anything else that might identify you on these materials, so check your document properties. You may not identify yourself in any way to the professor as the author of an exam until the grades are published. Make sure that your exam number appears on each page, which is most easily done with a header or footer.

Have a great summer, and stay safe in these odd times.

Patent Law Final Exam
Spring 2020

The questions are weighted as follows: Question 1, 54 points, Question 2, 23 points, Question 3, 8 points, and Question 4, 15 points for a total of 100. If any of your answers depend on facts not stated in the problem, feel free to identify which facts would be helpful, and how they would affect resolution of the issue. You may refer to answers to prior questions. Remember your word limit. I WILL STOP READING WHEN I REACH THE LIMIT.

ALL PEOPLE, WEBSITES, AND EVENTS ARE FICTIONAL, EXCEPT THOSE THAT ARE REAL, BUT EVEN THEN DO NOT LOOK OUTSIDE THE FACT PATTERN GIVEN. DO NOT RELY ON ANY CASES, STATUTES, CLAIMS OR OTHER ARGUMENTS THAT ARE NOT BASED ON ASSIGNED READINGS OR CLASS DISCUSSION – YOU DO NOT NEED TO DO RESEARCH TO COMPLETE THIS EXAM.

DO NOT ASSUME THERE IS ANY PRIOR ART OTHER THAN THAT DISCLOSED (IF ANY) IN THIS EXAM.

Patent Holder

Sometimes necessity is the mother of invention. Like others worried about catching Covid-19 during the coronavirus pandemic of 2020, Patent “Pat” Holder was looking for ways to go outside without getting sick. While outdoor activity was allowed by local order, people were supposed to maintain a safe distance from each other (which is currently reported by the Centers for Disease Control to be 6 feet, though the distance can vary with wind and other conditions), though they didn’t always do so.

On March 20, 2020, Pat’s Twitter feed included a picture that another user had presumably recently taken, though no date was printed on it. The picture, shown below, depicted a man with what appear to be foam pool noodles connected to a headband in four different directions. Presumably, the contraption was to keep people away.

There were many comments on the Twitter photo, mostly derisive and making fun.



Twitter photo posted March 20, 2020

After seeing the photo on March 20, Pat had an idea – what if there were a way to keep people at a distance in public? Pat thought that a ring would be the best way to keep people a safe distance away. Otherwise people tended to ignore one direction or other, as shown in the following picture.

Thank God the virus
can't move sideways.



Pat thought about using a Hula-hoop,¹ a toy ring that has been around since the 1950s, because it is continuous and thus would not allow anyone to come inside the hoop ring (without a lot of effort).

Unfortunately, the Hula-hoop only has a diameter of 44 inches, and so a radius of only two feet or less. As a result, everyone would have to wear a Hula-hoop and still stand with a foot or two in between the hoops.

So, Pat fashioned a much larger ring (12-foot diameter, 6-foot radius) out of plastic sticks connected by duct tape. Pat then attached ropes to the sides of the hoop, which were draped across the shoulder. Pat completed this prototype on April 1, 2020. By April 7, 2020, Pat was walking around wearing the invention on the streets and attracted reporters from a local news station. Pat found that the hoop did well at keeping people outside of its perimeter, but sometimes the ropes would move, causing someone to push the hoop (and the pusher) closer than six feet away from Pat.

A local TV news story aired on April 9, 2020, showing Pat wearing the invention.



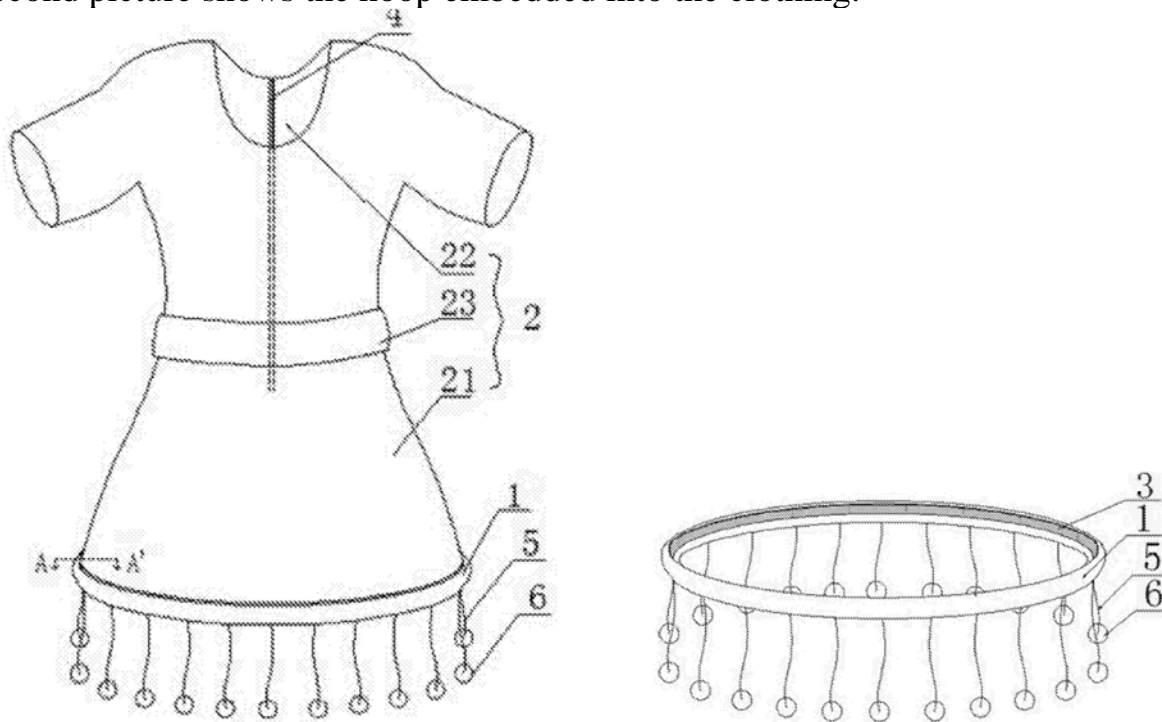
Pat wearing the invention on a news show aired on April 9, 2020

¹ @...or not. We can debate genericness at another time.

The Distancing Dress

At around the same time, Fashion House China (FHC) decided that it might be fashionable for people to wear physical distancing clothing. So, it set out to design a dress with a hoop built in. It designed a hoop with a six-foot diameter (three foot radius) based on the assumption that a) nobody would wear something bigger and b) the clothes would catch on and everyone would wear the hoops. The design of the dress ensured that the hoops would be maintained at the same height, so that they would bump into each other.

On March 25, 2020, FHC completed a prototype, shown below. Item 3 on the second picture shows the hoop embedded into the clothing.

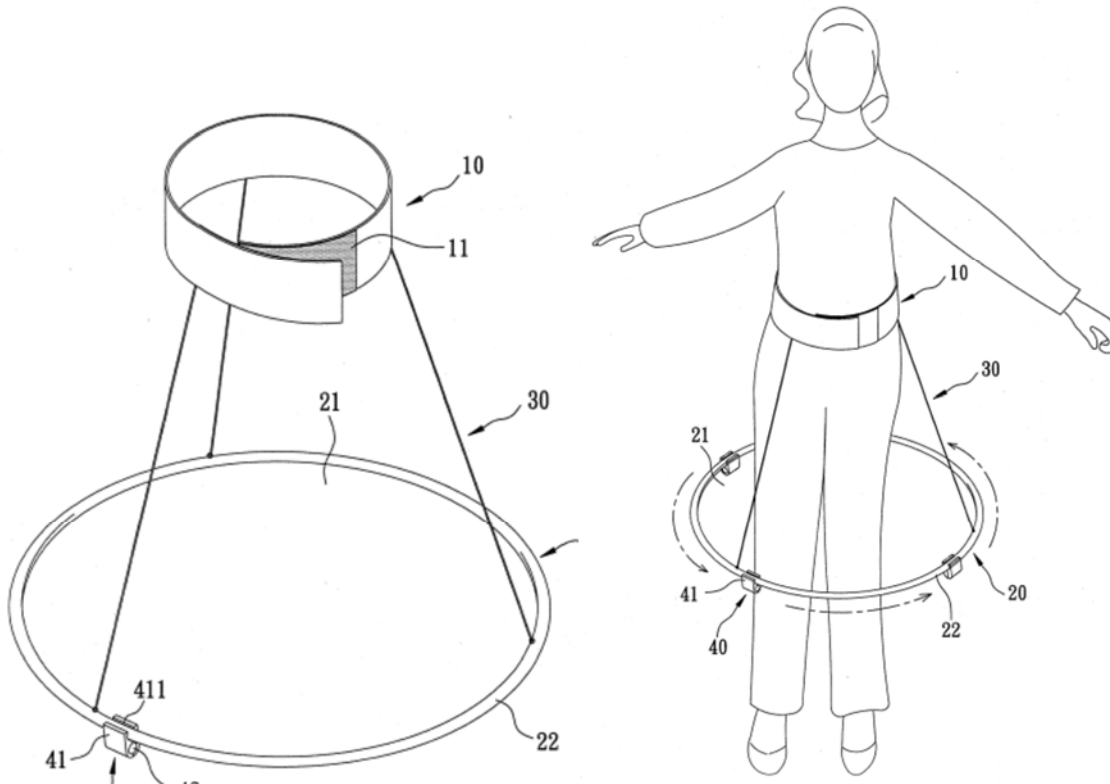


FHC filed a patent application in China (written in Chinese) on April 8, 2020. The application was published 18 months later. The application described the dress and the hoop, how to make it, and how to wear it, including its physical distancing benefits. It included the drawings above.

On April 8, 2021, FHC filed a patent application in the U.S., not under the PCT, which claimed priority to the Chinese application. The U.S. patent application was a relatively direct translation of the Chinese application. It published after 18 months, and finally issued on January 1, 2024. Sales never really took off.

The “Mega Hoop Distancer”

On May 1, 2020, Knock Offs ‘R’ Us (KORU) released a hoop distancer called the “Mega Hoop Distancer.” It was hastily designed based on Pat’s prototype but designed to be worn around the waist. Here are drawings of it. While designed to be worn around the waist, it could be worn anywhere on the body, including wrapped (a bit uncomfortably) around the neck and shoulder area.



Mega Hoop Distancer

The ‘123 Patent

Pat did not see the Mega Hoop Distancer for some time, in part because it was regionally used, and in part because the worst of the Covid-19 fears subsided in late 2020. However, in April 2021, the Mega Hoop Distancer saw a resurgence among those who would not take the Covid-19 vaccine for some reason or other that is irrelevant to this story.

So, on April 7, 2021, Pat filed for a patent. Relevant portions of the specification are below:

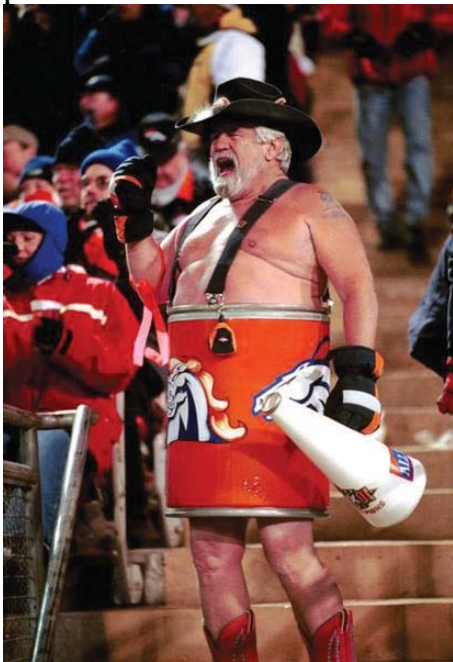
I have designed an apparatus for maintaining a distance between people so as to minimize the spread of infectious diseases, e.g. coronavirus. The invention consists of a hoop or other circular/cylindrical shaped structure. Attached to the hoop are straps, ropes, or other supports designed to be worn about the neck and shoulder area. The straps are of sufficient length as to suspend the hoop about the body of the wearer. By wearing the device, people cannot come within the perimeter of the hoop.

[included in the specification is a drawing similar to the picture from the newscast, above, showing the ropes attached to the large hoop and how the person would wear it]

I claim: *[NOTE: not final claim]*

1. A physical distancing device comprising:
a hoop or other cylindrical structure;
one or more support members; and
wherein said support members are attached to said hoop/cylindrical structure in such a manner as to be worn about the neck and shoulder area.

The application published in due course eighteen months after filing. During examination, however, the examiner rejected the patent based on the following prior art:



Barrel Man Prior Art

Apparently, Tim McKernan, aka Barrel Man, had been wearing a barrel attached to straps around his neck since the 1970's, and his son has taken up the tradition since his death.

Pat's prosecution counsel amended the claim (and added a new one), successfully arguing (to the PTO at least), that making the object large enough for physical distancing (as opposed to McKernan's snug barrel)² was not obvious.

The '123 Patent issued in 2024. The **final claims** of the '123 Patent are as follows (the amendments are in italics):

1. A physical distancing device comprising:
a hoop or other cylindrical structure;
one or more support members;
wherein said hoop or other cylindrical structure is sufficiently sized to distance the wearer from infectious bystanders; and
wherein said support members are attached to said hoop/cylindrical structure in such a manner as to be worn about the neck and shoulder area.
2. The device of Claim 1:
wherein said support members are attached to the hoop/cylindrical structure in such a manner *as to be worn anywhere on the wearer's body.*

Pat has sued Knock Offs 'R' Us for infringement of Claims 1 and 2 of the '123 Patent.

² It is possible that McKernan's barrel was not so snug in his younger years, but the barrel size never changed.

ASSUME THAT THE AMERICA INVENTS ACT APPLIES UNLESS THE QUESTION STATES OTHERWISE

QUESTIONS:

Q1: You are counsel for Pat Holder. Please draft a memo describing the challenges to the validity of the '123 Patent that Holder might see, and the responses Holder has to such challenges. (54 points)

Q2: You are counsel for Knock Offs 'R' Us. Please draft a memo describing the infringement claims by Pat that KORU will likely see on the Mega Hoop Distancer, and the responses KORU has to such claims. Do not address Doctrine of Equivalents (that's the next question). There is no need to address contributory or induced infringement. There is no need to address any defense of invalidity from Q1. There is no need to address inequitable conduct. (23 points)

Q3: Assume for this question only that Pat sues Knock Off 'R' Us for infringement of **claim 1** under the doctrine of equivalents, arguing that the waist support in the Mega Hoop Distancer is equivalent to being worn around the neck and shoulder area. Write a memo describing the points that Pat will make and the defenses KORU will raise. (8 points)

Q4: Assume that this case fell under the 1952 Act. How would the analysis in Question 1 change? Answer in 20 sentences or less. (15 points)