Legal Analysis

Year: \_2019\_ Semester: \_Fall\_\_\_ Team: \_\_8\_\_ Project:\_Condiment Express\_\_\_\_\_\_\_\_\_

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Assignment Evaluation:

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| --- | --- | --- | --- | --- |
| **Item** | **Score (0-5)** | **Weight** | **Points** | **Notes** |
| **Assignment-Specific Items** | | | | |
| **Regulatory Analysis** | 4 | x3 | 12 | Good, check inline comments |
| **Analysis of Patent 1** | 5 | x3 | 15 | Good |
| **Analysis of Patent 2** | 5 | x3 | 15 | Good |
| **Analysis of Patent 3** | 5 | x3 | 15 | Good |
| **Writing-Specific Items** | | | | |
| **Spelling and Grammar** | 4 | x2 | 8 | Avoid silly mistakes. |
| **Formatting and Citations** | 5 | x1 | 5 | Good |
| **Figures and Graphs** | 5 | x2 | 10 | Good |
| **Technical Writing Style** | 5 | x3 | 15 | Good |
| **Total Score** | 95 | | |  |

5: Excellent 4: Good 3: Acceptable 2: Poor 1: Very Poor 0: Not attempted

Comments:

*Comments from the grader will be inserted here.*

How about a simple coffee dispenser patent like this: <https://patents.google.com/patent/US20150060481A1/en>?

1.0 Regulatory Analysis

As a device that provides condiments to the user when cooking, one of the most important is to ensure the safety of the condiments. Our device needs to follow the US FDA (Food and Dietary Supplements) Food Safety Modernization Act and related examinations in order to be certified [4]. This is very important because as a machine for serving condiments, contaminating the condiments can cause severe consequences. The design and development of the prototype of our product need to pay close attention to this issue.

While designing, we are trying to ensure the quality of the condiments as most of them are placed in a closed container that is commonly used for storing food. This ensures that the condiments stored in our device are not directly exposed to the outside environment. The tricky part comes when designing the dispensing mechanism for the condiments. For solid condiments, we have designed a 3D printed rotational sphere with an opening on one end to dispense condiments when rotating (shown in figure 1). We have chosen FDA approved plastic raw material for 3D printing so that it is safe to have contact with the condiments. For liquid, we are using peristaltic pump and the tube for that is also using FDA certified material. One last part is the delivery system, the temporary container that collects required condiments and delivers them to the user. The delivery system is also 3D printed and may need a non-stick coating to ensure all of the condiments can be delivered. We are currently researching into a non-stick coating that is safe to have contact with condiments so that there are no toxic chemicals that might be consumed while using this machine for condiments preparation.

Another important thing is the product needs to follow FCC standards. Since we are communicating wirelessly between the iPhone and our product, we have to use bandwidth that satisfies the FCC standards [5]. Since we are using standard short range BlueTooth for wireless communication, we do not have to worry about this too much.

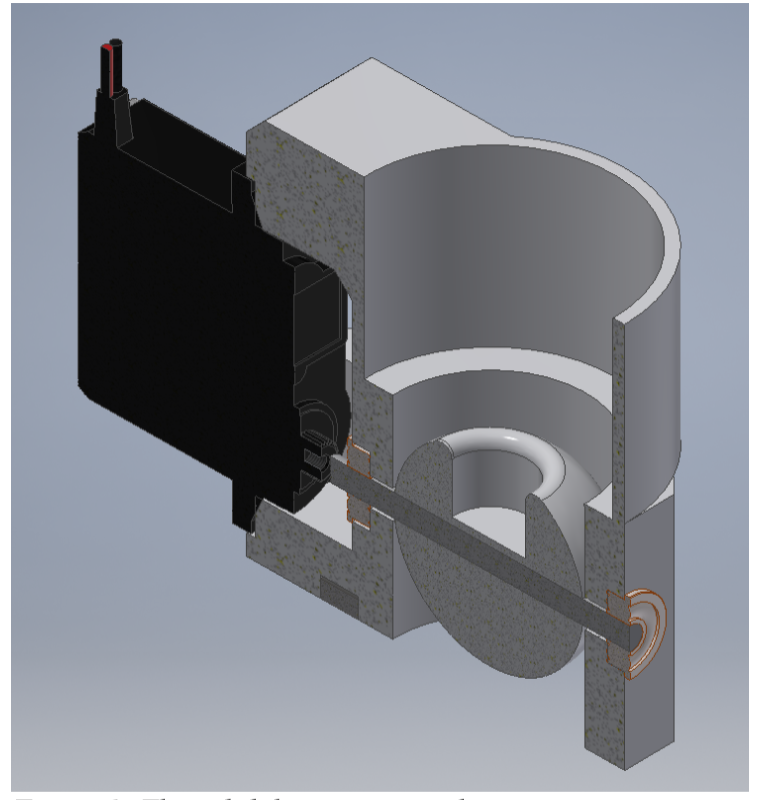


Figure 1. The Solid dispensing mechanism

2.0 Legal Liability Analysis

2.1 Analysis of Patent 1

**Patent**: Sanitary touch-free automatic condiment dispensing apparatus and method of use

**Inventors:** Ernest F . Falco, III, Longwood, FL ( US )

**Filed:** Sep . 8, 2014

**Patent NO.: US 9, 809, 439 B2 [1]**

**Description:** This patent is about a “Sanitary touch-free automated condiment dispensing apparatus.” The patent described a way of dispensing condiments, that is touch-free, with the predetermined amount to avoid waste. It can dispense condiments including ketchup, mustard, mayo, etc. It uses multiple rounds of sensing to make sure the container can be placed and ready to accept condiments. The main purpose of this product is to avoid users touching the traditional pump in order to get condiments, which may “cause a user to contract a disease or lead to a disease outbreak.”

The patent described a new way of dispensing the condiment, which is helpful yet does not directly solve our problem: automating and controlling condiment dispensing based on the meal that the user wants to cook. The product described in the patent is mainly for the sauces like ketchup by using an electronic sensing system over a physical pump for hygiene. Our product is more used for chefs to require a preset amount of condiments that needed for making a certain meal. We are able to control the amount more precisely and take user input based on the meal rather than the specific condiment that the user is looking for [1]. This patent shared just a few similarities with ours, so the only potential infringement is the two designs can both be controlled from mobile devices like computers or mobile phones.

2.2 Analysis of Patent 2

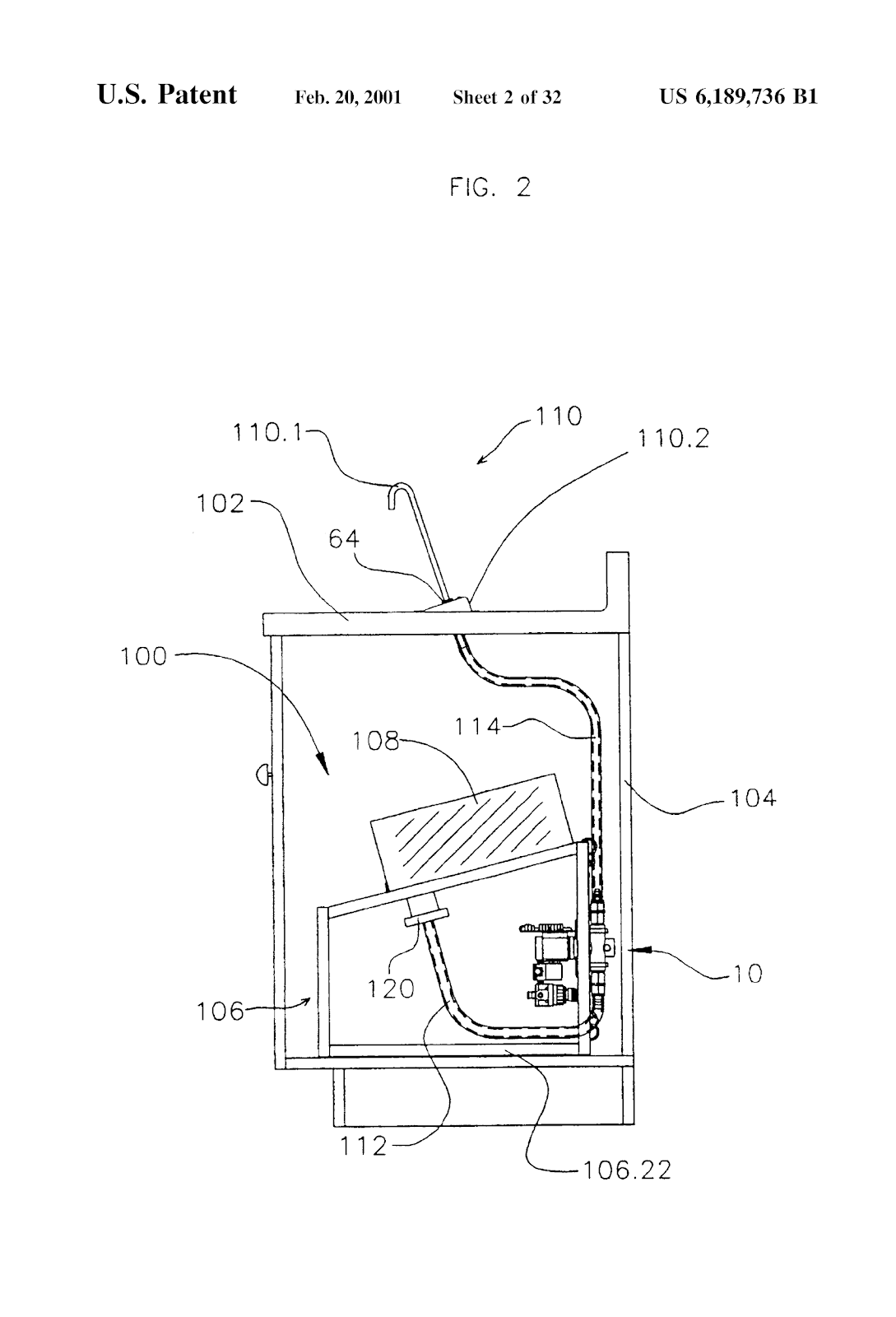
**Patent #2:** Condiment dispensing apparatus

**Inventors:** Iver J. Phallen, Youngstown; Douglas N. Vogt, Pavilion, NY (US)

**Filed:** Mar.11,1998

**Patent NO.:** US 6,189,736 B1 [2]

**Description:** This is a patent about pumping liquid condiments such as ketchup and mustard. As the picture shows the major part of the design is hidden in the large box making it clean and simple. Two linear peristaltic pumps are used to suck liquid condiment from the bottom. There is a large set of machines installed in the large box below. The machine which is composed of the pump will connect to the box container and suck condiments from it. However, this patent is not able to measure and regulate the number of condiments and it doesn’t allow the filling of solid condiments. Also, the patent must go with the large box which makes it not a good choice for family, since it can only load two types of liquid condiments but requires huge room to place [2]. The potential infringement is the way to dispense liquid condiments which both use the pump.



2.3 Analysis of Patent 3

**Patent #3:** Full-automatic kitchen container for condiments

**Inventors:** Yusheng Li

**Filed:** April, 15,1993

**Patent NO.:** CN 93227894 [3]  
  
**Description:** This patent is about automatic condiments containers. Different from other patents that are related to condiment dispensers, this design is focusing on the automatic loading of condiments instead of dispensing. [3] It creates a complex mechanical mechanism to load and somehow dispense condiments without using hands to avoid adding any impurities into the condiment container. Also, all the components of this design uses can be made of 3D printed materials except spring, so it can reduce the cost of the products. Even though our focus is to dispense the condiments, but loading condiments are also the crucial part that we need to take into considerations. Therefore, this patent can provide us some ideas if we want to make our whole design to be fully automated. However, the disadvantage of this patent is that there are no pictures provided; all the mechanism is described in languages, so it is hard to reconstruct the design and learn about it. Since this patent is in Chinese, though we can understand it, the description of the patent is not really clear. Therefore, even though we pick this as a similar patent, we don’t see the potential of infringement of this patent.

3.0 Sources Cited:

[1] Ernest F. Falco, “SANITARY TOUCH-FREE AUTOMATIC CONDIMENT DISPENSING APPARATUS AND METHOD OF USE,” 07-Nov-2017.

Available:https://patentimages.storage.googleapis.com/1b/a8/cb/660ec75a4a3421/US9809439.pdf [Accessed: 06-Apr-2019].

[2] Iver J. Phallen, Youngstown and Douglas N. Vogt, Pavilion, “Condiment dispensing apparatus,” 11- MAR-1998 Available:https://patentimages.storage.googleapis.com/d0/2d/20/414f9b1c93677f/US6189736.pdf [Accessed: 06-Apr-2019].

[3] Yusheng Li, “Full-automatic kitchen container for condiments”, 15-Apr-1993, Available:

https://patents.google.com/patent/CN2165772Y/en?q=automated&q=condiments&oq=automated+condiments+ [Accessed: 06-Apr-2019].

[4] Center for Food Safety and Applied Nutrition, “Food Safety Modernization Act (FSMA),” *U.S. Food and Drug Administration*. [Online]. Available: https://www.fda.gov/food/guidance-regulation-food-and-dietary-supplements/food-safety-modernization-act-fsma. [Accessed: 06-Dec-2019].

[5]“Rules & Regulations for Title 47,” *Federal Communications Commission*, 21-Dec-2017. [Online]. Available: https://www.fcc.gov/wireless/bureau-divisions/technologies-systems-and-innovation-division/rules-regulations-title-47. [Accessed: 06-Dec-2019].