Project Deliverable K: **Intellectual Property Search**

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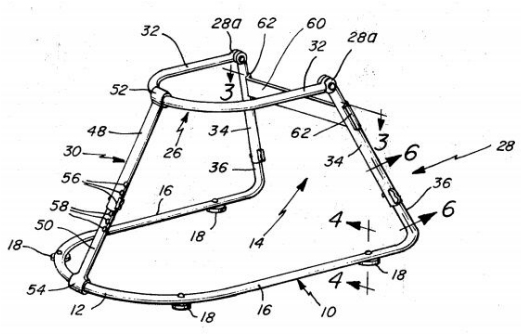
Wanting to develop or invent a new product, first requires one to do benchmarking. Benchmarking is the practise of researching and evaluating other existing products related to your intellectual property, to gain information and ideas to help you develop your own product. Benchmarking through researching intellectual properties helps organisations save time by steering them in the right direction based on what has already been made, and what ideas are still available to further develop.

1. Benchmarking - intellectual properties related to your product:

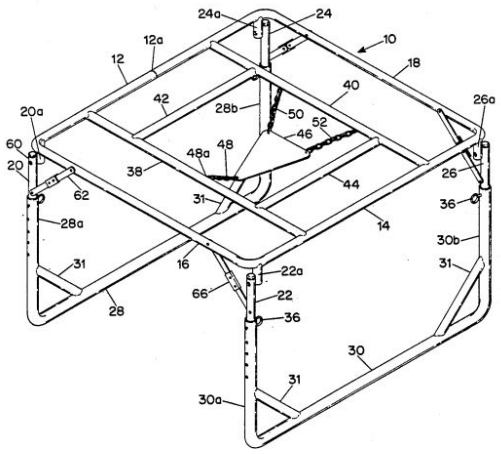
1.a:



A basic skating aid made in 1977 which is still used by many beginner skaters today, that includes a small frame attached to four low friction disks that allow for easy mobility on ice. A U-shaped handrail supported by three posts is made to adopt to different heights of users, while also allowing the device to be compacted for easy transportability. A back rest is also provided behind the device to support the user from behind.

Reference: http://www.freepatentsonline.com/4021033.html

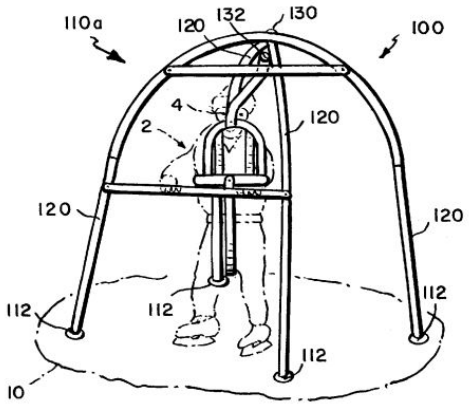
1.b:



A skating aid that provides support for beginner skaters that involves a large square frame built up to approximately waist height, supported by four telescoping poles that adjust for different heights of users, and also allow for easy transportation and storage. The frame is sat on elongated runners that allow the device to be propelled forward on the ice, while a flexible seat is suspended in the middle of the frame provides safety catch which prevents falling if the user loses balance.

Reference: http://www.freepatentsonline.com/5033734.pdf

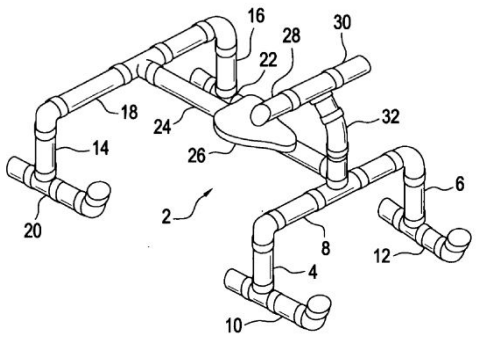
1.c:



A device used for training beginner ice skaters, involves a large supporting frame that stretches to above the user's head, holds a harness which supports the weight of the user. The tall frame is attached to 4 long poles that extend to come in contact with the ice, allowing the frame to respond according to the user's movement. A horizontal bar is provided in the front of the support to provide extra balance to the user.

Reference: http://www.freepatentsonline.com/6537077.pdf

1.d:



A training aid for skaters consists of a low frame with a seat, handlebars, and four runners surrounding the device. The overall frame modeled much like a bike, is meant to be used as a support in case the user starts to lose balance or even get tired. Other versions of the skating aid involves using 1 large runner underneath the frame instead of 4, or 3 runners arranged 2 behind and 1 in front of the user. A rope can also be attached to the front of the device to act as a sleigh type support which can be pulled by an attendant in front of the user.

Reference: http://www.freepatentsonline.com/20140141940.pdf

2. Relationship between our product and the intellectual properties

A. The first intellectual property is similar to our product in that it has adjustable handrails for the user to hold onto for support. The low friction discs are similar to the low friction acrylic "ice wheels" of the Ice Cube for smooth gliding on ice. Although the device is compacted for easy transportability similar to how the ice cube is foldable for easy transportation, the back rest is inadequate to prevent users from falling, which is a strength in the design for the Ice Cube.

B. This product is similar to the Ice Cube in that it provides a seat to catch the user if they fall. While also being adjustable and transportable, a main difference is that the user would have to be lifted into the seat to be able to use the aid. Depending on the age, weight and strength of both the user and the attendant, this process could cause injury. The Ice Cube has a seat that the user can simply swing their leg around to easily get into position for use without risk of injury.

C. This device is similar in its ability to successfully catch the user if they fall although a different means is used: a harnessed seat instead of a seat extruding from a bottom support like in the Ice Cube. Since the points of contact allow the frame to move along with the user, once harnessed in, the help of an attendant is not needed, giving some autonomy to the user. The Ice Cube requires assistance from an attendant at all times but in the future it would be nice to develop the product for autonomy similar to that provided by this intellectual property.

D. Similar to the Ice Cube, this design provides a solution to when the user gets tired while the attendant wishes to continue skating. In this case, a bike-like seat is used to catch the user if they fall and also to sit on for longer periods of time while the attendant can pull a rope attached to the front. For ice cube, a seat protrudes from the base to catch the user if they fall but it must be adjusted for when the

attendant gets tired and wishes to sit. They are able to rotate a part of the seat around to extend the width of the seat and sit on it comfortably like a bench.

3. Importance of these intellectual properties with regard to your product and the impact they could have on your success - competition.

Having other intellectual properties to compare to helps us to develop our ideas by seeing what aspects of other design work and others that could be improved upon. Instead of learning on our own through trial and error, we can determine what worked and didn't work in other designs to ensure that we avoid them or improve upon them. From a legal point of view, the intellectual properties allow us to ensure that we're not creating an idea that is already on the market and potentially copying them. From a business perspective, we can use other patents to see if we can make a better/more cost efficient product. We need to compare our product to others on the market to check if it is worth going into that market. If other skating aids are being sold for $1000 and we are able to make one with the same requirements that only costs $300 to make, there would likely be a market for a product for those that aren't able/willing to pay $1000 for a product that essentially does the same thing.

4. Discuss the way in which your team intends to manage intellectual property created with your product.

After testing, it would be great to acquire a patent for our invention, and for that we will have to require a formal application for a design patent. A Patent is a temporary limited legal right granted to an inventor by a government to prevent others from manufacturing, selling or using our invention. For filing a patent we will have to provide a full description of the invention, do a preliminary patent search (for use it as a guide) and a formal patent search, draft the patent with drawings and claims, review it by us the inventors and Patent Agents, and finally, fill it with the Patent Office.

By doing this we expect to protect the rights of us, as inventors, and make a collaboration to the public repository of technical information. The next steps would be make final versions of the technical drawings and take pictures to attach them to the patent forms.