

Explanation of the Device

[Name of the Device]

집게형 안경 클리너 {Tong-shaped Eyeglasses Wipe}

[Summary]

This product is a tong-shaped device that wipes items such as eyeglasses, electronic devices, etc, to be more specific, this product will sanitize the wiped items using the disinfectant storage (4), installed on the body (3) of the product. There will be a plastic tube placed in the disinfectant storage (4), for the users to be able to press on the tube and allow the alcohol to flow through the disinfectant hole (9), to the microfiber hole (8), for the alcohol to be evenly distributed around the microfiber cloth that will be attached to the edge of the microfiber head (7) with velcro. The product to be wiped goes in between the two microfiber heads (7), and in this process, the plastic tube must be pressed to allow the alcohol to be distributed to the microfiber cloth and be applied to the lens/screen of the product.

[Technical Field]

This device is a glasses wipe, containing disinfectant in a tong-shaped body. To be more specific, alcohol disinfectant is added to the body (3), and it will flow through the disinfectant hole (9), from the body (3) to the head (2), and be released to the microfiber hole (8). This product will be a 2-in-1 product of disinfectant and a wipe, which will solve the inconvenience of purchasing two items separately.

[Technology Behind the Device]

PLA filament is used for the whole body (body (3) +head (2)), which allows the body to be biodegradable and compostable because PLA filament is made out of plant starch of corn. Another advantage of using PLA plastic as the product's body is that it can be printed at a low temperature due to its element of the PLA (corn starch). The reason why this product should be made out with PLA is that it is the most commonly used filament for extrusion-based 3D printing, which is used in many of the parts of my product.

Information about the Device

[Problems that the Device is Trying to Solve]

The product will solve 3 problems in total, firstly, the inconvenience of purchasing glasses wipes and alcohol disinfectants separately. The second problem is the oiliness that ordinary glasses wipe gives, after its several usages. The last problem is that ordinary glasses wipes are not aesthetically pleasing.

[Methods of Solving the Product]

Firstly, the product will solve the inconvenience of purchasing two items separately by combining the elements into one product, in a tong shape. The body will be constructed with an alcohol disinfectant storage (4) that will contain the disinfectant, and a microfiber cloth attached to the head (2). This doesn't mean that the two elements will work separately, but they will be part of one product by having a hole (9) that connects between the head (2) and the body (3), and through this hole, the alcohol will flow to the head (2) and be released through the microfiber holes (8), making them interact each other.

Secondly, the product will solve the oiliness by establishing alcohol disinfectant storage (4) on the body (3), and the disinfectant will allow antibacterial and remove the oiliness that is often caused by ordinary eyeglass wipes. Also, because of its antibacterial factor, the product can be used in other devices such as phones, flat-surfaced devices, etc, if it is under the size that the product can handle. The size of the product is 11*4*3cm³, with a length of 11cm, a height of 4cm, and a width of 3cm.

Lastly, the product will solve the aesthetics, by having a shape that supports itself and is part of an interior design. This can be done when the product is created with a structure (tong shape), and the reason why this design is more aesthetically pleasing than the eyeglasses wipe is that my product has an actual shape when the others do not.

[Effect of the Device]

The product is easy to use by allowing the alcohol to be released when the disinfectant storage (4) is pressed, the microfiber cloth will be easy to replace due to the velcro on the borders of the microfiber head, and it will get rid of the oiliness without a lot of strengths.

[Simple Explanation of the Device]

[Isometric View of the Product]: Overview of the product

[Plan 1]: Close-up of the microfiber hole (8)

[Plan 2]: Close-up of the disinfectant hole (9)

[Plan 3]: Side view of the product

[Specific Details for Carrying Out the Design]

Hereinafter, preferred embodiments will be described concerning the accompanying drawings. Firstly, alcohol disinfectant will be placed in the disinfectant storage (4) and it will be covered with a plastic tube so that the users can press on it to release the disinfectant. Through the hole (9), the alcohol disinfectant will flow to the microfiber hole (8), and 6 holes for the hole (8) will allow the disinfectant to be spread evenly.

The space between the two bodies (3) allows diverse lengths of glasses/devices to be cleaned. The largest length between the two bodies is 2cm and the shortest length between the two bodies is 0.1cm. The device's size is 10.5*5.3*3.5cm³.

Image #1 is the isometric view of the product, plan #1 is the close-up of the microfiber hole (8), plan 2 is the close-up of the disinfectant hole (9), and plan 3 is the side view of the product.

The microfiber cloth will be attached to the edges of the microfiber head (7) with velcro, and because of this, 0.5cm of velcro will be attached around the microfiber head (7).

[Explanation of the symbols used in the main parts of the drawing]

2: Head

3: Body

4: Disinfectant Storage

7: Microfiber head

8: Microfiber hole

9: Disinfectant hole

14: Hinge

17: Rubber tube

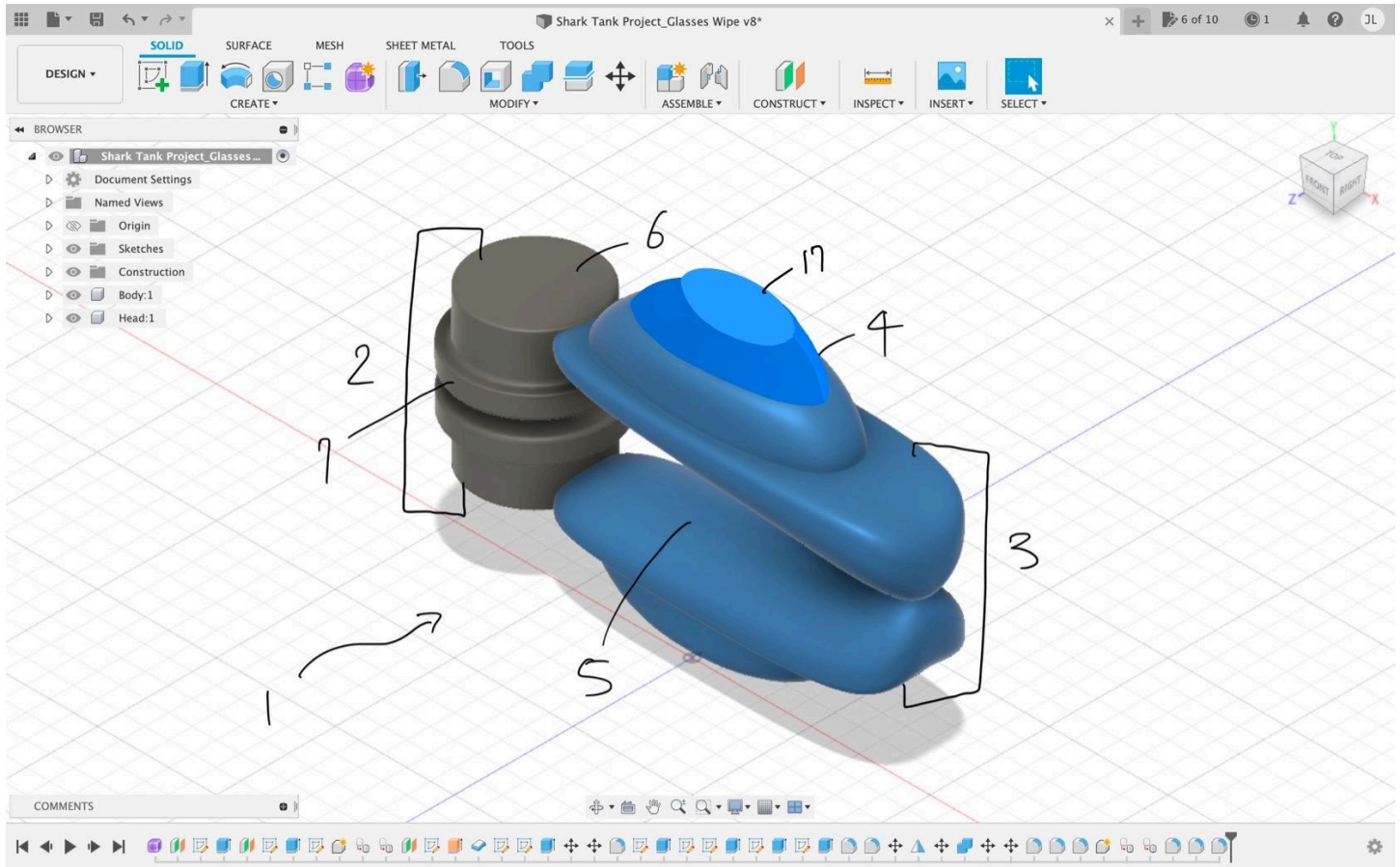
[Claims]

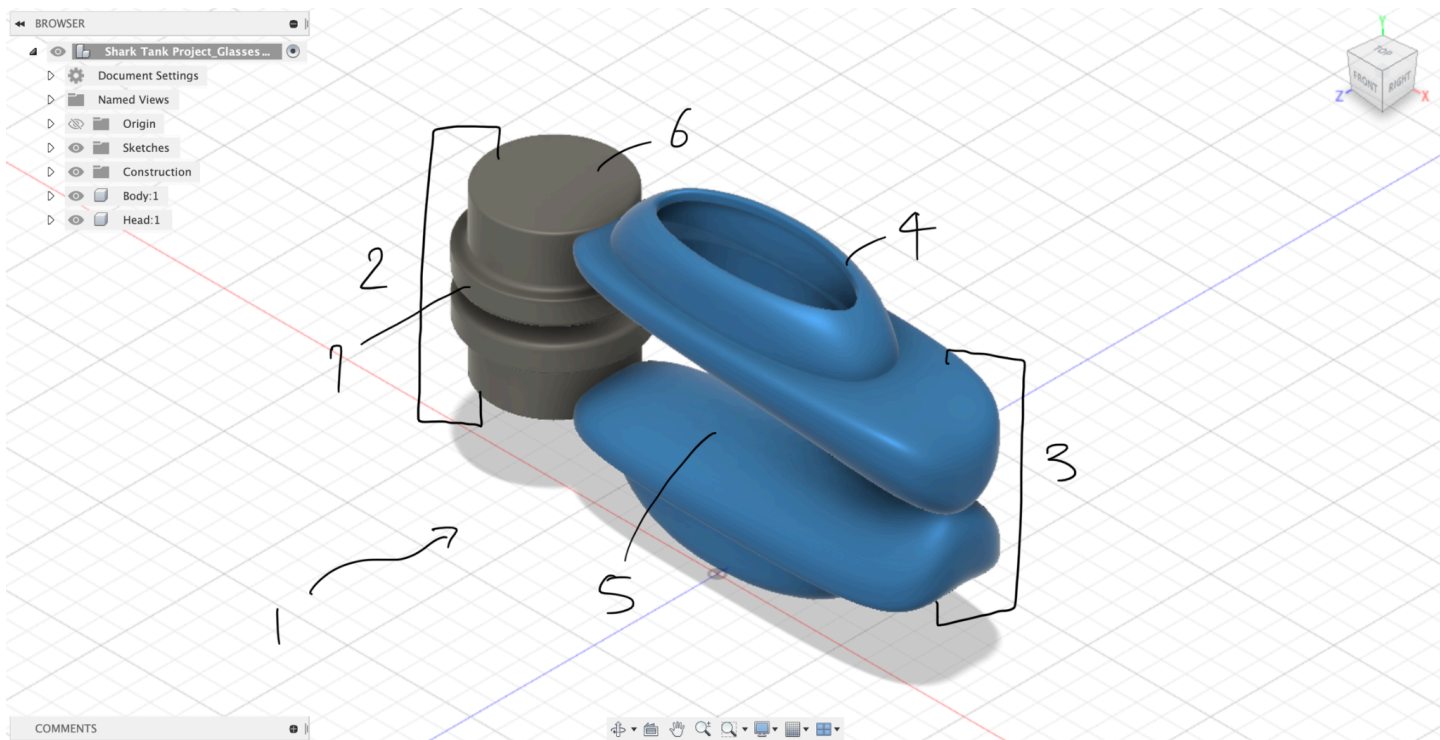
A tong-shaped device for wiping devices, such as eyeglasses, phones, etc, comprising the factors of:

1. Disinfectant storage (4) for alcohol to be stored for it to antibacterial wiped items,
2. According to claim 1, is characterized in that, the antibacterial disinfectant storage (4) allows the product to be special from other similar products.
3. A disinfectant hole (9) and 7 microfiber holes (8) to allow the alcohol to flow through the device,
4. According to claim 3, is characterized in that, the disinfectant hole (9) that is attached to the disinfectant storage (4) will allow the alcohol to directly flow to the head (2) of the device, and when the alcohol reaches the head (2), it will be evenly distributed to the microfiber cloth that will be attached to the microfiber head (7), with the 7 microfiber holes.

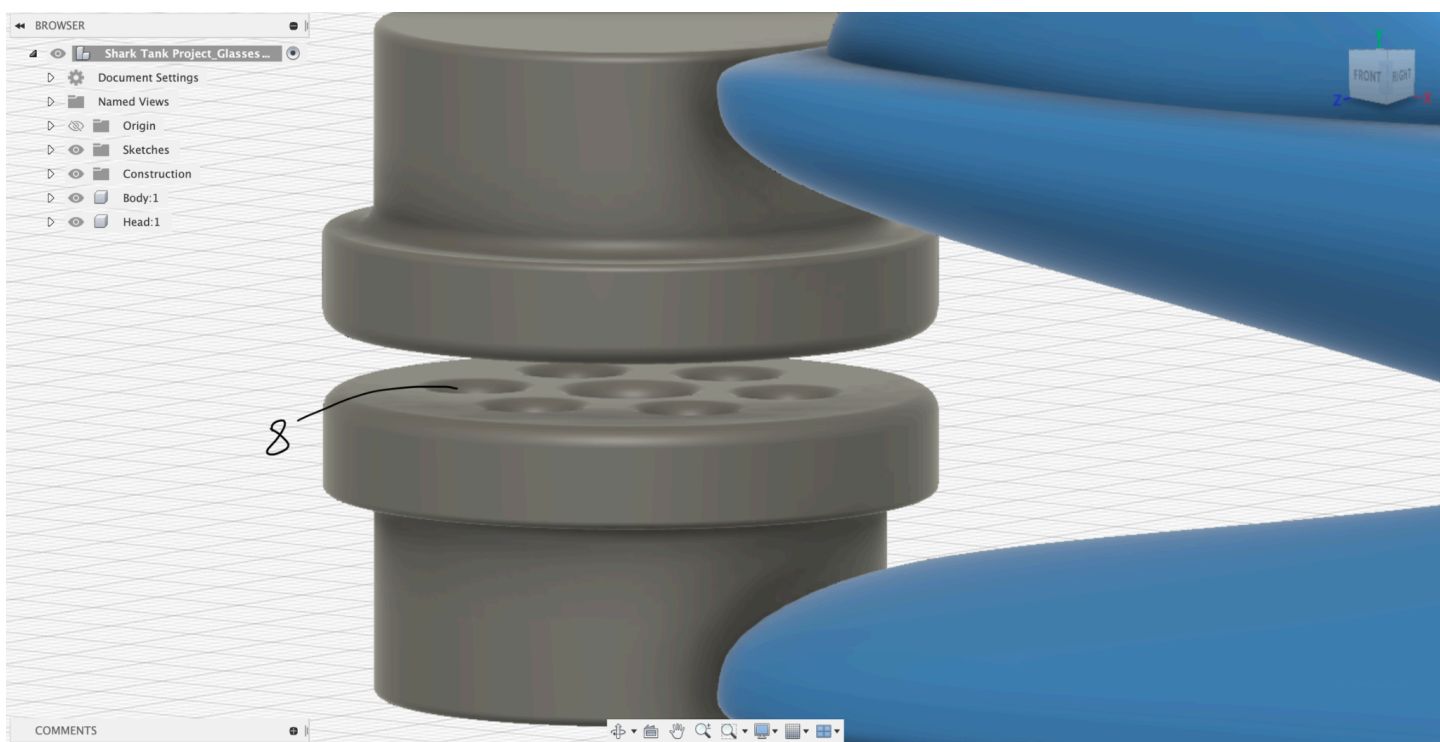
[Drawing of the Plan]

[Isometric View of the Product]

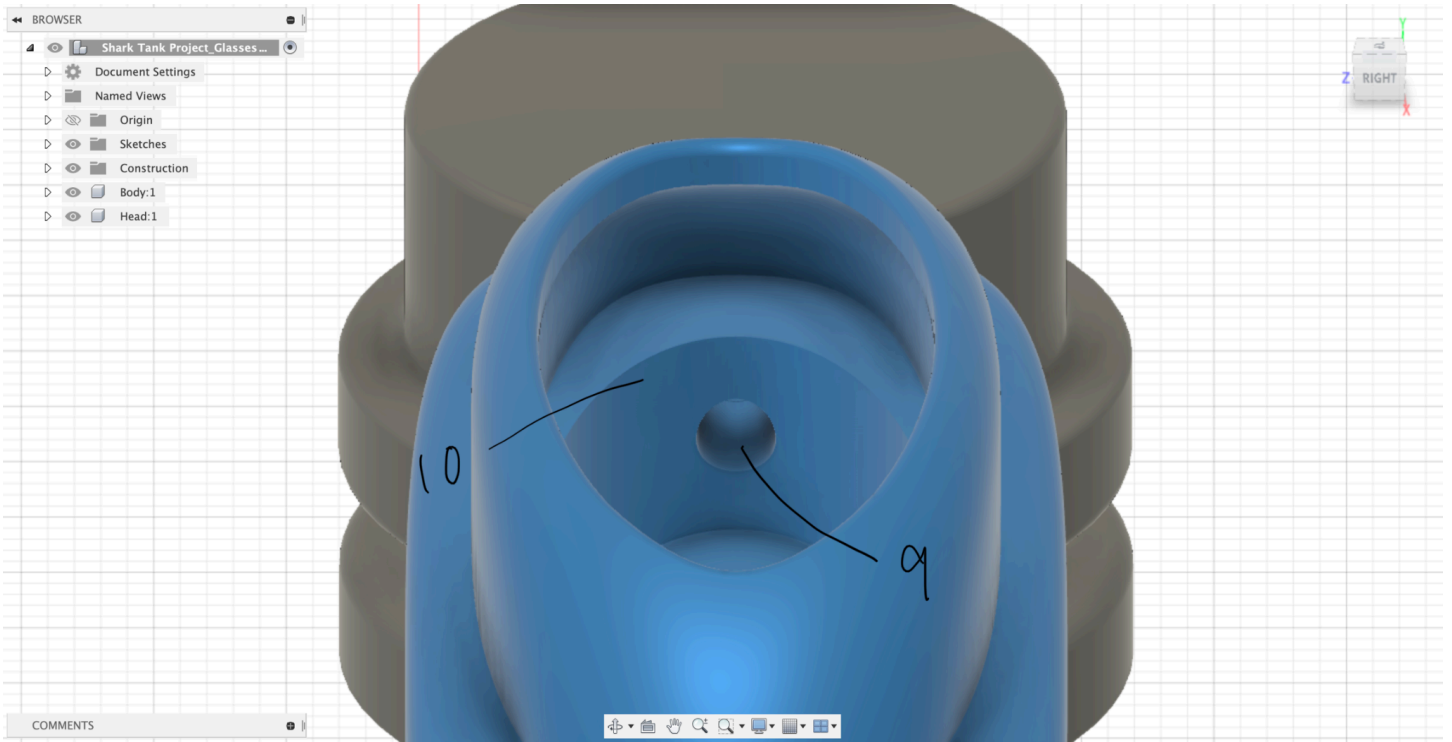




[Plan 1]



[Plan 2]



[Plan 3]

