

Multifunctional Clothes Drying Rack

FU SHAO-YU, LI TAO-RAN, TAI PEI-SHAN, TAI PEI-LING

Kornell Academy, Zhubei City, Hsinchu County, Taiwan (R.O.C.)



Introduction

As the name suggests, the clothes drying rack is a clothes rack with multiple functions. It is not only dust-proof, quick dry, and even sterilized.

- Drying clothes indoor when its raining outside.
- Improves the wardrobe rack to have the effects of dust-proof.
- Dried quickly when using with hair dryer.
- Equipped with ultraviolet light, which can achieve sterilization effect.

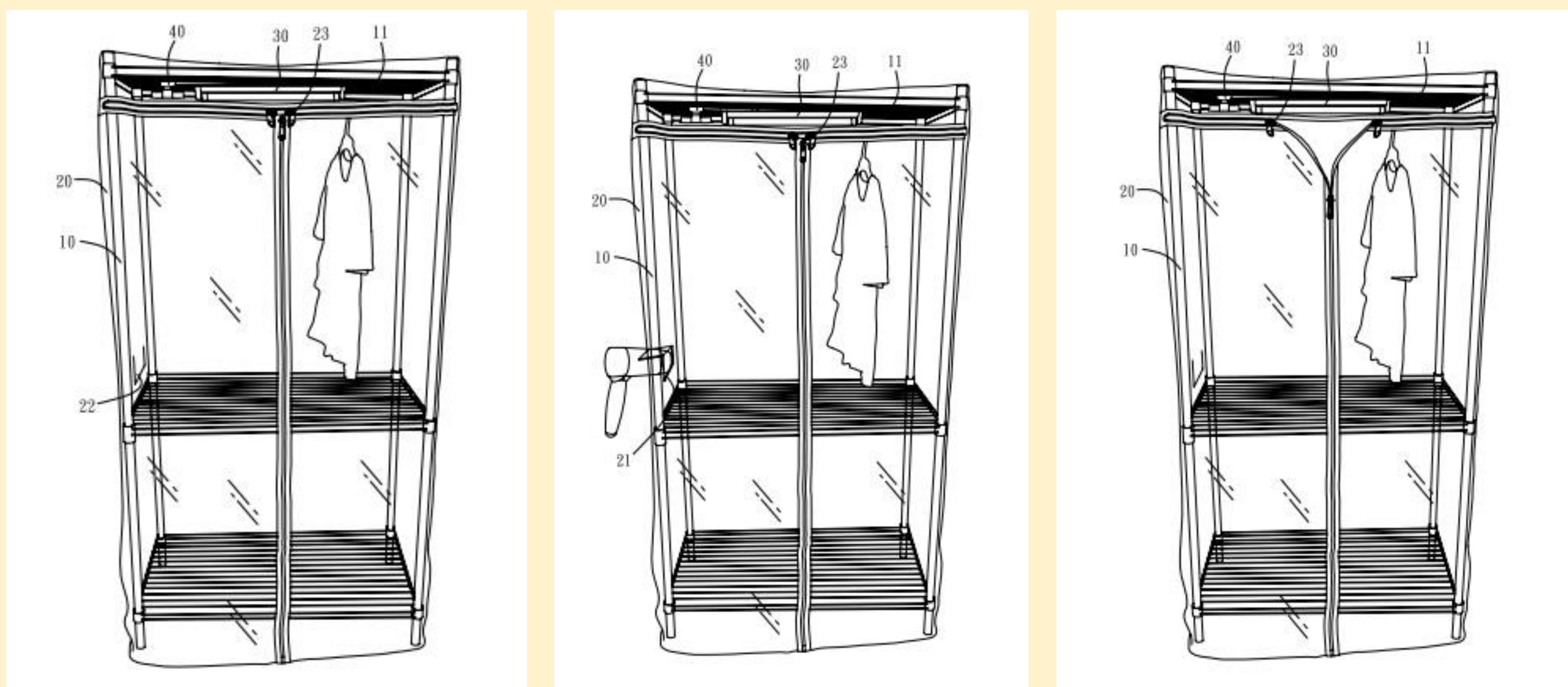


Motivation

- Design Concept
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 - Due to COVID-19, people concern about anti-pathogen.
 - People argue that when its rains, we can not dry our cloth properly.
 - Clothes may have germs.
 - People may have problems when back to home and there's no time to dry and clean clothes.
 - Normal closet aren't easy to move around the houses.
 - Normal closet were easy to have dust

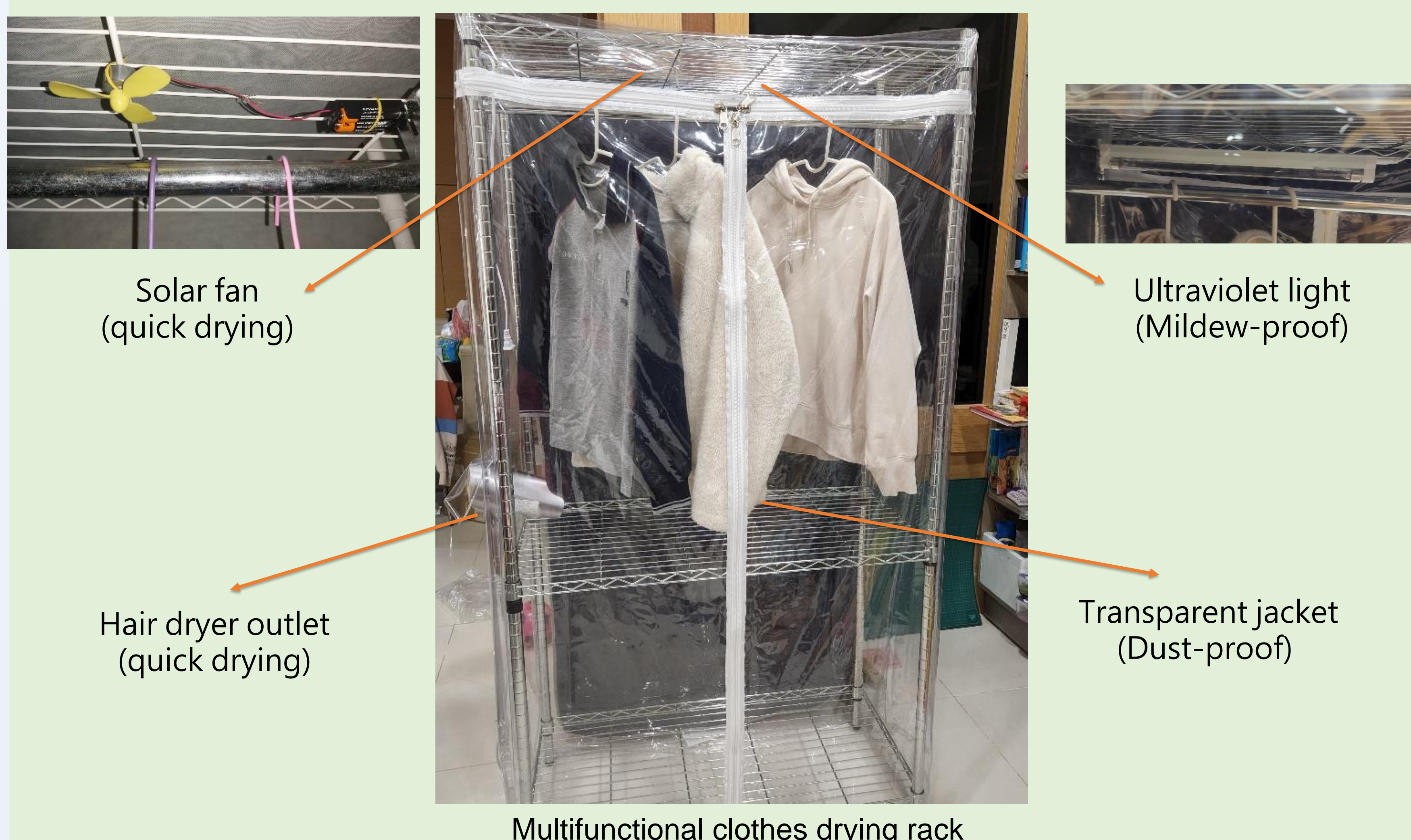


2. Design Diagram



Implementation

- Easy to setup within 10 minutes.



Advantages

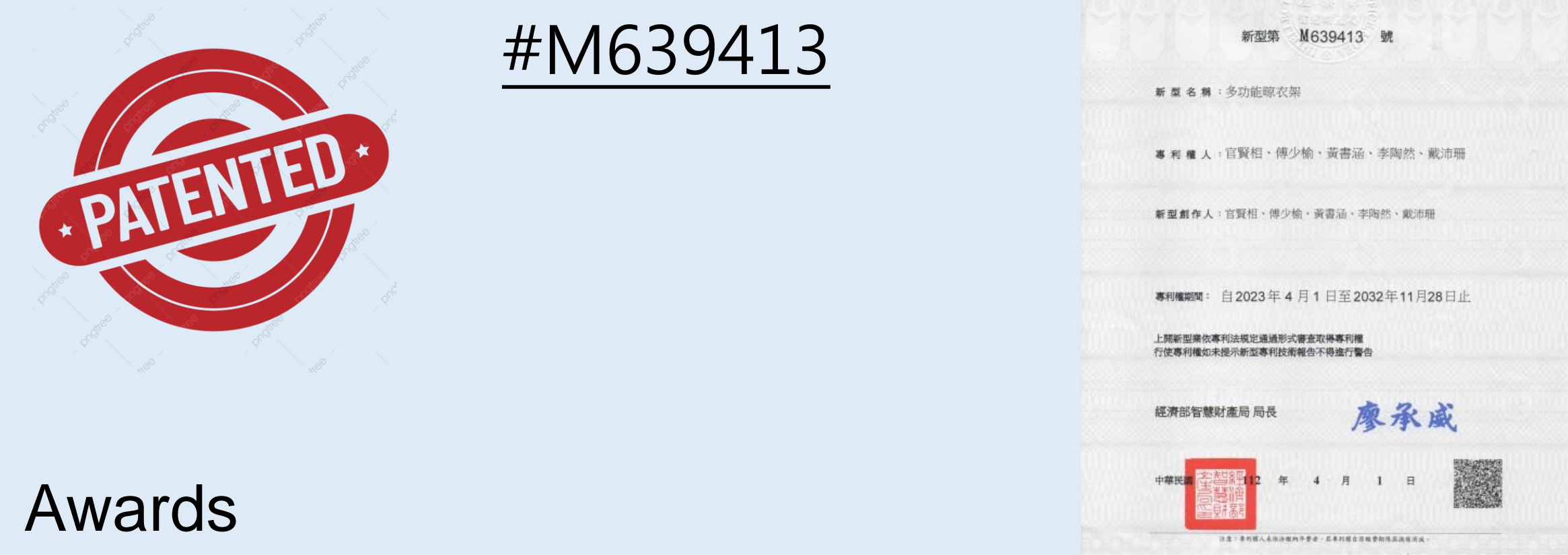
1. Comparison (with Functionality spec.)

Products	Clothes stand	Our product
Size	Small	Small
Outdoor (Water-proof)	No	Yes Win
Sterilize (Mildew-proof)	No	Yes Win
Dust-proof	No	Yes Win
Quick-drying	No	Yes Win

2. Benchmark Results (with Testing data)

Products	Clothes rack	Our product
Cost (USD)	\$300	\$100 Win
Recombine	No	Yes Win
Drying time	1 day	25 mins Win
Power supply	Plug in	Sola fan
Size (cm ³)	-	90*45*180
UV light	-	25mins (99.9%) Win

3. Patent Application



4. Awards



Conclusion and Expectation

- The Multifunctional clothes drying rack can achieve key features like Quick drying, Mildew-proof, Dust-proof, and Water-proof with low-cost design that is convenient to recombine to anywhere without outdoor limitation.
- Expectation
 - Can expand larger space hang up more clothes
 - Can be collapsible
 - Scalable size for portable use.
 - Can be more easy to move around.
 - Include steam to iron clothes and deodorant.
 - Ability of humidity detection.



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