ABSTRACT

An Automated Multipurpose Electric Dryer Comprising the unitary function of light bulb and ceramic light bulb that is serve as a heating element to make the fruits and cloths dry. The Air circulator to spread equally the heat in every layer of the product. With Tray use to be the holder of the slice fruits. Steel tube hinged used to hung the clothes. The Timer to monitor the time that consume in drying. With the Thermostat controller to monitor the temperature of the product and it will automatically off the product if it is reaching the maximum temperature set. the Power supply to provide stable electricity, with power switch use to power on the product.

FIELD OF INVENTION

The present innovation relates to an Automated Multipurpose Electric Dryer which comprises an air circulator, light and ceramic bulb marine plywood for its interior and can be used for drying foods, as-well as cloths.

BACKGROUND OF INVENTION

A dryer is a product that is usually powered by electricity and served as single purpose. Recently some dryers are used for various function. Some dryers are expensive and high electricity consumption. Fixing this problem can provide a convenient and satisfaction to user.

The prior art is a Safety Microwave Dryer (CN 103697666B) that is comprises a box body, a microwave generator, and a control system for controlling the microwave generator, wherein the front side of the box body and the door body a hinged surface is disposed on the contact surface of the body with the door body, the door body is provided with a groove for receiving the convex surfaces, and the door body is provided with a metal at a hinged portion thereof with the box body protected net.

A safety type microwave dryer according to claim 1, wherein the convex surface is at least three and are respectively disposed on the three contact faces of the box body except the hinged surface of the box body and the door body. The contact of the door body with the convex surface are provided with a groove adopted to the convex surface.

Some specific problem of this prior art is that it is not automatic and it is also having a small space and without any layers, and it can only dry some food but not cloths and also it consumes a high electricity consumption.

SUMMARY OF THE INVENTION

This Automated Multipurpose Electric Dryer is a tool that is used to dry foods and cloths. The Automated Multipurpose Electric Dryer help lessen the electricity usage and we can also do some other task or multi-tasking drying the food or cloths, comprising the power switch 1, timer switch 2, temperature controller 4, door handle 23, glass 21, wheels 12, air circulator 5, ceramic heating element 7, food tray 10, round bar hinged 11, power supply 17, terminal block 18, wire 14.

BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWINGS

Figure 1 is a perspective view showing the overall view of Automated Multipurpose Electric Dryer.

Figure 2 is a perspective view showing the Automated Multipurpose Electric Dryer on the upper part of the product comprises with all the electric components was attached.

Figure 3 is a perspective view showing the outer part of the Automated Multipurpose Electric Dryer consisting marine plywood, plain sheet to make the product durable and also the door of the product attached with glass to see what is inside of the product.

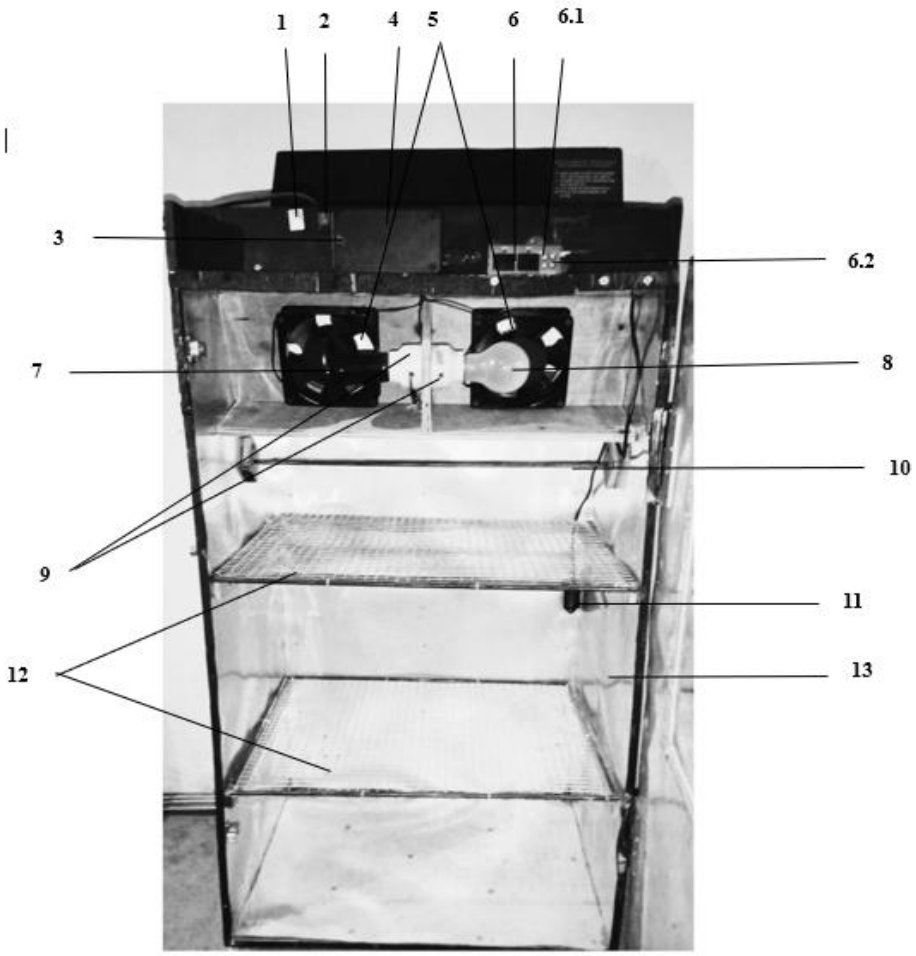

FIGURE 1

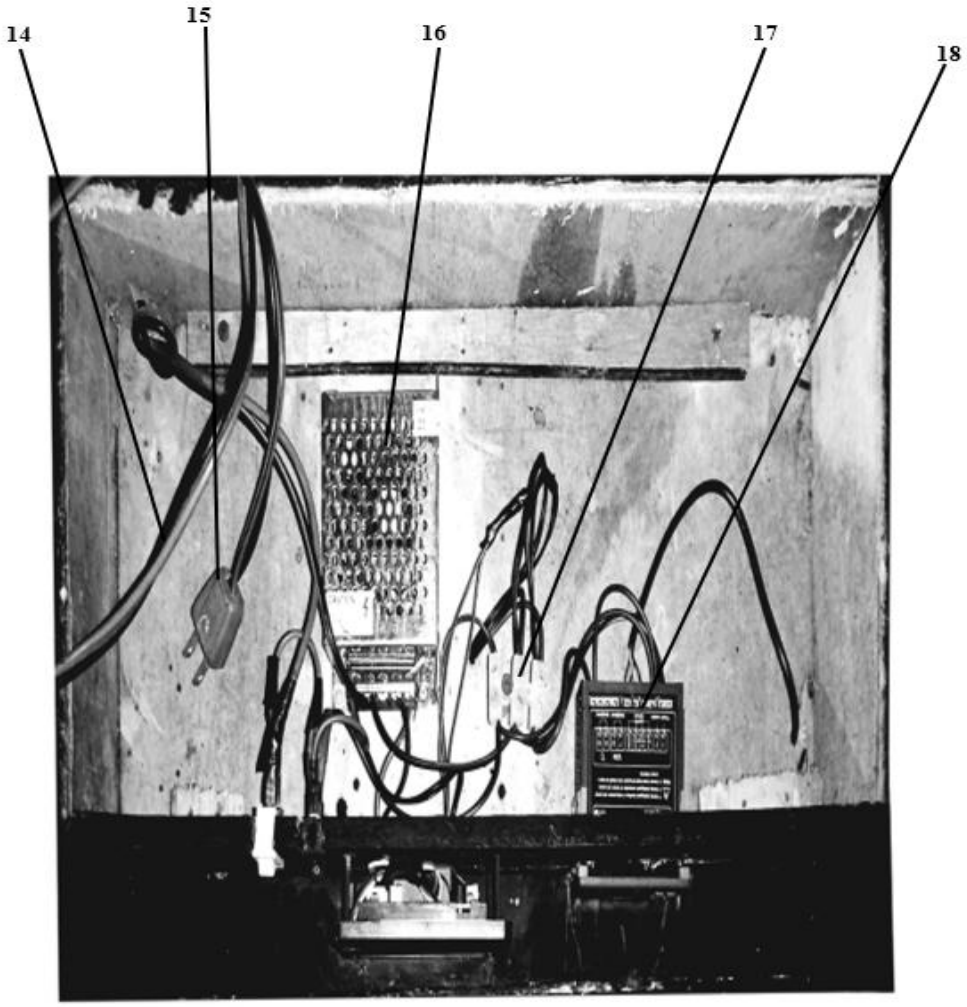

FIGURE 2

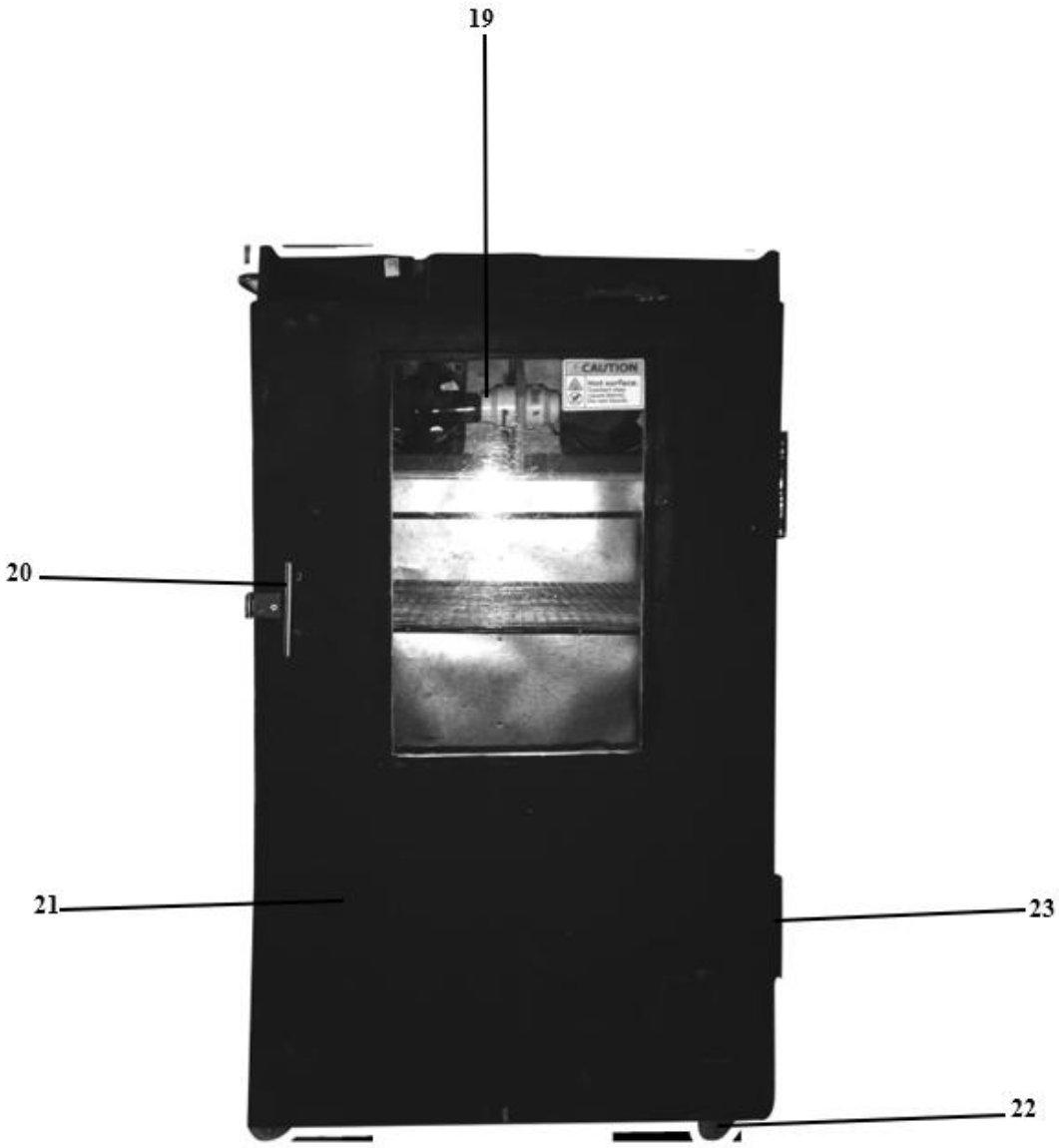

FIGURE 3

Detailed Description of the Preferred Emboidment

Figure 1 show the overall part of the Automated Multipurpose Electric Dryer Comprising the switch 1, serves to power on the product with the timer switch 2, to switch on the timer screen 4, timer button 3, where you can set the desired time to dry an item, air circulator 5, used to produced air to equally distribute the heat from lower to upper part of the product. The Thermostat screen display and humidity screen display 6 where the humidity sensor 6.2 and thermostat 6.1 are attached at the upper right portion of the innovation, thermostat controller 6.1 where you can set the heat of the innovation and it will automatically turn off the innovation if the maximum heat set is reached, humidity sensor controller 6.2 where you can set the moisture of the product inside the innovation and it will also automatically off when the maximum moisture set is reached, Socket 7 is to attached with the light bulb 8, and ceramic bulb 9, serves as a heating element to produce heat to dry the items, hanger holder 10, used to hang the cloths, thermostat sensor 11, detect the maximum heat in the product and can automatically off when it reached the maximum heat of the product, tray 12 use to hold the product that needs to be dry, and 13 plain sheet to protect the wooden board as the base of the product.

Figure 2 shows the upper part of the Automated Multipurpose Electric Dryer comprising with connector wire 14, where all the device that need electricity has to be connected, power plug 15, used to connect to supply electricity needed, power supply 16 serve to provide stable electricity, coupler 18, to connect safely all the electrical thermostat sensors and humidity sensor 19, used to set the minimum heat needed in drying a product.

Figure 3 shows the outer part of the Automated Multipurpose Electric Dryer with clear glass cover 20, is where to see what's inside on the innovation, wooden board 21, served as the base of the innovation door hinge 22 use to attach the door to can easily open and close the product and wheels 23, to easily transfer and moved the product.

CLAIMS

An Automated Multipurpose Electric Dryer comprising an Air Circulator 5, light bulb 8, and ceramic light bulb 9, assembly, humidity sensor and thermostat screen display 6, hanger holder 10, A screen tray 12, power supply 17, coupler 18, conductor wire 14 and wooden board 21, with steel plate 13 fixed in the wooden board and rollers 22.

The Automated Multipurpose Electric Dryer according to claim 1 where in a ceramic bulb 7, and light bulb 6, is fixed inside the product at the upper portion serve as heating element to dry fruits and cloths.

The automated Multipurpose Electric Dryer according to claim 1, where the air circulator 5, where used to equally distribute the heat produced by the heating element to dry the product inside the innovation.

The Automated Multipurpose Electric Dryer according to claim 1, where light bulb 8, and ceramic bulb 9, used as a heating element to dry the product and it will automatically turn off when the thermostat sensor reaches the set maximum temperature inside the innovation.

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The Automated Multipurpose Electric Dryer according to claim 1, where the humidity sensor and thermostat screen display 6, where the humidity sensor controller 6.2 are attached at the upper right portion in the device which are essential for the drying function of the device. A humidity sensor is used to monitor the moisture content and the thermostat controller 6.1 is to monitor and regulate the heat inside the device automatically. The process of regulation of heat is done by automatically turning on and off the heating element.

The Automated Multipurpose Electric Dryer according to claim 1, where the hanger holder 10, is fixed inside the innovation where you can dry your cloths and hang it into the hanger holder.

The Automated Multipurpose Electric Dryer according to claim 1 where the screen tray 12, is placed inside the innovation where you can dry product like fruits and vegetable by cutting the product into thin slice and place it into the upper and lower screen of the innovation and the screen tray is removable.

The Automated Multipurpose Electric Dryer according to claim 1, where the upper part of the product attached the 12v power supply 17, used to supply a consistent power to an electrical load especially on the timer screen.

The Automated Multipurpose Electric Dryer according to claim 1, where wooden board 21, serves as the base of the innovation and covered with steel plate 13, to make the base more durable and to prevent the wooden board from burning.

The Automated Multipurpose Electric Dryer according to claim 1, where the rollers 22, is fixed under the innovation so that it will be transfer easily without lifting it.

The Automated Multipurpose Electric Dryer according to claim 1, Consist with affordable device so that the innovation will also be affordable in the market places and it also low on consuming electricity bills. The innovation also is a friendly user where you can operate it easily and leave it while drying a product since it will automatically of when it reaches the desire time set on drying a product.

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Cai Yuanming

·2014 Safety Microwave Dryer Nanjing Yanzheng Microwave Equipment FactoryYuanming
Patent No. CN103697666A·https://worldwide.espacenet.com

RA 9299 Republic of the Philippines June 25, 2004
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18Q19869

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QUALITY POLICY
Negros Oriental State University commits itself to provide quality instruction, research, extension and services and production as well as to comply with applicable regulatory requirements and continual improvement of its management system.

Certificate of Innovation Utilization

The office of Innovation Technology Support Office here by turn over to **PROF. DIVINA R. BULAY**, HM faculty, *College of Business Administration* the following innovation for utilization:

UNIT	INNOVATIONS	UTILIZATION PURPOSE	TURN OVER DATE
1	Automated Multipurpose Electric Dryer	This innovation will be used by the HM student for their laboratories.	April 2, 2024

Noted by:

RAYMUND TANQUINO
Inventor's Representative
BSIT-COMPTECH

PROF. DIVINA R. BULAY, LPT
HM faculty, *CBA*

Confirmed and Authorized by:

NOVA A. CORCIEGA, MAEd
Asst. Research and ITSO Coordinator

ID	MPER-MOCA-MITSO-I0002-000			
Issue Date	04-02-2024	Issue Status		
Reviewed and Authorised	MOCA	Approved by:		




This shows the actual turnover of our innovation to Professor Divina R. Bulay made at HM laboratory on April 03, 2024, for the use and advantage of the Bs-HM students. The said turnover was with the presence and participation of the BS-HM advisers, Mr. Bernard Bactul and Raymond Abugan.

AUTOMATED MULTIPURPOSE ELECTRIC DRYER

USER'S MANUAL

1. Plug in the male plug to the outlet
2. Press the white switch to turn on the product
3. Press red switch to turn on the timer
4. Set the timer by pressing the black button at the left side of the timer
5. By drying cloths remove the tray inside the product

White switch

Timer switch

Timer display

Thermostat and humidity sensor display

Note:

Make sure to check the plug if it is dry, when it's wet do not plug in directly to avoid electrical shock

When setting the thermostat sensor press the first line arrows and second line arrows for setting the humidity sensor.

Take away the product to any wet surface.

Do not touch the lightbulb and the ceramic bulb it can cause burn due to high heat.

Always make sure to lock the product while drying any items.

Keep away the product to children's.

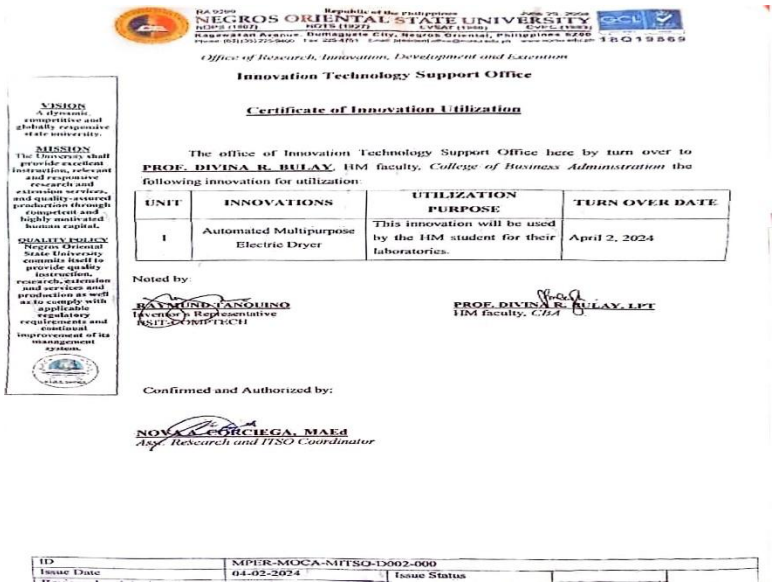
DOCUMENTATIONS

February 2024 2nd semester, we finish our manuscript for critics.

After the approval and critics we successfully submitted our manuscript to our adviser and to the RIDE office.

Preparing working on our patent drafting specially on figures and claims.

After some review of our manuscript we put another elements to our product as recommend of the panelist of our final defend which is the humidity sensor and thermostat controller



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UNIT	INNOVATIONS	UTILIZATION PURPOSE	TURN OVER DATE
1	Automated Multipurpose Electric Dryer	This innovation will be used by the HM student for their laboratories.	April 2, 2024

Noted by:

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Inventor's Representative
NSTP COMPTECH

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HM faculty, *CBA*

Confirmed and Authorized by:

NOVA K. ORCIEGA, MAEd
Asst. Research and ITSO Coordinator

ID	MPER-MOCA-MITSO-D002-000
Issue Date	04-02-2024
Issue Status	

After we successfully attached the recommended element to our product we are preparing to turnover our product and process the letter for utilization.

We successfully tun over our product to the HM Laboratory with Prof. Devina B. Bulay with the adviser and students of BSHM.

We are preparing our report for patent drafting and working on doing Power point and brainstorming on the functions of the element attached on the product.

We successfully delivered our report on patent drafting and taking down notes for some recommendations to enhance our patent drafting before the final defense.

Preparing everything for our manuscript for the patent drafting.

Assigning the members of the group to study and research more about our claims and advantages on having our product.

May 28, 2024 final oral defense, we present to the panelist our patent drafting the defense was going so well and most of the questions of the panelist are answered and we can say that our oral defense was succesfull.

After the defense we take a group pictures with the panelist as documentation for successful oral defense.

CURRICULUM VITAE

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