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AN OVERVIEW OF SELF DESIGN AND FABRICATION OF RIGHT HINGE DOOR REFRIGERATOR CUM WATER PURIFIER WITH ADVANCED FEATURES

Mohd. Wasi Baig

Research Scholar, OPJS University, Churu, Rajastan (India)

ABSTRACT

In present scenario many investors are focussing on high productivity, better quality and lower production cost with multipurpose home appliance. In this paper I have design and fabricated right hinge door refrigerator cum water purifier with advanced features, ergonomic designed multipurpose home appliance.

Key words:-RO,SP,QC,QA,TQM,QMS,ISO,QMS,R&D

I. BACKGROUND OF INVENTION

Refrigerator is very common appliance in middle and upper classes in our country and it also make up a huge portion of our energy bill. So it makes sense to look carefully at their energy efficiency credentials and to make sure to run in most efficient way possible. Our aim is to design a refrigerator which has certain qualities like instant cooling, higher efficiency, cost effectiveness, energy efficient, ergonomics design etc.

II. OVERVIEW OF SELF DESIGN AND FABRICATION OF REFRIGERATOR WITH ADVANCED FEATURE

i) Implement left hand doors type's refrigerators:-

Single door refrigerator take a share of more than 80% in the market and almost all are right hinge (operated with right hand).In Indian market these are available in various variety of capacities and models, the most common is the single door 165 liter capacity. Almost all refrigerators have right hinge doors (Operated with right hand).We Indian mostly prepare our food items to touch with right hand, operating the refrigerator with right hand takes longer time since door opening and handling the contents is to be done by right hand only, this lead to a loss of cooling and can be saved to some extend if a left hand door is provided.

ii) Provide a Tap in refrigerator:-

Refrigerators in India are mostly used to preservation of food items and for cold water. If we provide a tap for cold water, which will be minimize the opening of the door by about 60% and that will help improve the overall

energy efficiency in the refrigerator and implement a tap, can be a good energy savings since loss of cooling due to door opening is confined to the compartment only.

iii) Keep refrigerator away from wall;-

Keep the fridge at least 10 cm from the wall, as this will allows the coils to work most efficiently. Vendors should educate the consumers to ensure periodical defrosting and not to place the refrigerator close to the walls.

iv) Integrated water purifier:-

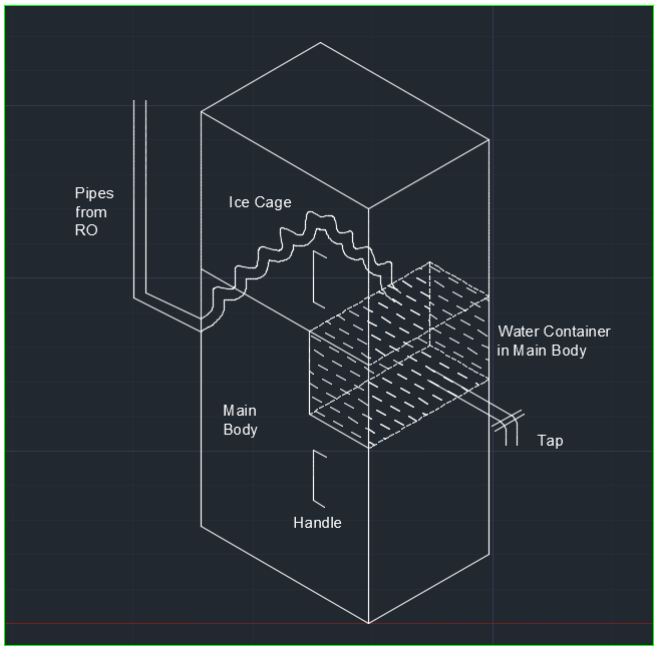
Purifying water reduce the concentration of particulate matter including suspended particles, parasites, bacteria, algae, viruses, fungi, may as well as reducing the amount of a range of dissolved and particulate material derived from the surfaces that come from runoff due to rain. Water purifier attached with refrigerator will help to reduce above continents and also reduce space.

v) Ergonomics design:- we claims our refrigerator is ergonomics design which helps user friendly ,comfort design, function design and have a proper account of interaction between the components and the people who use it.

vi) Door locks:- Door locks ensure safety to prevent unauthorized access

vii) Safety control:- Alarms buzzer for system malfunction over and under temperature and sensor errors.

Figure



Applications:- Household
Industry
Cryogenics
Medical
Commercial purposes

III. CONCLUSION

After analysis of our refrigerator with conventional device ,now we are in position to say our device has certain additional feature like energy efficient, cost effectiveness ,left hand operated door, additional tap provide to increase overall efficiency ,integrated water purifier, ergonomics design with user friendly refrigerator. I am looking forward to apply for the patent soon.

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