
SPACE- SAVING AND MULTIPLE USING FURNITURE

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Abstract

With the recent rise in the prices of land and apartments, it was necessary to find ways to deal with this cost and how to overcome it, so the emergence of space-saving furniture or mobile furniture, which is characterized by its small size and multi-use, so it is suitable for the areas of small residential units which often do not exceed 100 meters, this is appropriate for the poor and middle classes of society, and at the same time makes us feel comfortable and happy. The research problem is determined by the absence of foundations and standards for the design of some units of multi-purpose economic furniture according to the standards and requirements of the human body and the lack of attention to the negative and health effects resulting from them on human health. The research was interested in shedding light on many ideas and designs of this space-saving furniture, which can be called "smart furniture", as it combines many features, as it saves large spaces, especially in small homes, compared to its multiple uses, in addition to accuracy and elegance in design. The research aims to apply the theories and sound scientific foundations that must be taken into account when designing this type of furniture, which allows its users to comfort and ease of use, and to interactively control the dimensions, spaces and angles of furniture units according to their uses and purposes, in order to achieve the functional and aesthetic dimensions of the space. Among the findings, is that innovation in designing multi-use furniture leads to development in various economic and social aspects, by facilitating marriage opportunities for young people and facing the challenges of high prices and low incomes.

Keywords

Smart Furniture, Space-Saving, Furniture, Design.

Introduction

Classifications and terms of housing in Egypt have varied according to the executive regulations of Law No. 106 of 1976 issued on directing and organizing construction work in Egypt to four levels of housing, which are economic housing, middle housing, upper-middle housing, and luxury housing. This classification is subject to several factors, including:

- A. The general location and price per square meter of the land on which the buildings are located.
- B. The internal space of the unit.
- C. The type of facilities and services available.
- D. The type of materials used in construction and interior finishing.

With the recent rise in land prices in general, and residential units in particular, small housing units, whose area does not exceed 100 meters in most cases, are commensurate with the middle class, and upper-middle classes of Egyptian society at a certain economic and social level. We find that there are two types of small housing units, one used for permanent residence, and the other for temporary residence.

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Research Problem

The research problem is determined by the absence of foundations and standards for the design of some units of multi-purpose economic furniture according to the standards and requirements of the human body, lack of attention to the negative and health effects resulting from them on human health, in addition to the economic problem that arises as a result of the use of some technological elements (mechanics) imported from abroad in the manufacture of this type of furniture, which would greatly raise the cost of the product, so that it loses one of the most important design requirements in being economical furniture, and becomes unaffordable to the middle class, which is the primary target class of this type of furniture.

Research Objectives

The research aims to raise awareness of the importance of using space-saving and multi-purpose furniture, especially in residential units with small spaces, and the research aims to apply theories and sound scientific foundations that must be taken into account when designing this type of furniture which allows its users to comfort and ease of use, and to interactively control the dimensions, spaces and angles of furniture units according to their uses and purposes, to achieve the functional and aesthetic dimensions of the space by shedding light on a number of ideas, designs, and technological methods used in this type of furniture.

Results

Through the study of the research, the following results were reached:

- Multipurpose furniture combines several functions, as versatility is achieved by combining primary and secondary functions in one product to achieve economy in design and space without sacrificing performance efficiency.
- The use of multi-purpose furniture in small residential units is one of the most important elements to meet the many activities and needs of the users according to the development of their future lives.
- Innovative design of multi-use furniture leads to upgrade various economic and social aspects by facilitating marriage opportunities for young people, and facing the challenges of high prices and low incomes.
- The designer that plans in a scientific, economical manner, and with an aesthetic sense, is the one who is able to reconcile and combine functional, ergonomic and aesthetic values into a multipurpose product.
- It is preferable not to overburden small interior spaces with many pieces of furniture of large sizes and to use multi-purpose furniture units that are simple and reduced, as they work to reduce the internal spaces used in them.

- The necessity of studying the measurements of the human body and their relevance to the internal space of the dwelling in relation to dealing with the terms of its furnishing, as the ergonomic design of furniture can only be achieved by applying ergonomic and anthropometric concepts that fulfill the physiological needs for comfort and relaxation.
- The necessity of attention and familiarity with modern technological methods for designing multi-purpose furniture units to make them more flexible and easier to use.
- Given that our society today has adopted industrialization and economic planning, it has become necessary to pay attention to modern technological methods and familiarity with them that enable us to economize in the internal space in order to complete the progress of society on economic foundations and sound scientific methods.

Recommendations

We recommend increasing the production of multi-purpose furniture units and establishing factories for the manufacture of machinery for this type of furniture in order to be self-sufficient and not to be imported from abroad, so that the product becomes one hundred percent local which helps to reduce the cost of the product when it is put on the local markets.

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