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RESEARCH ANALYSIS OF TRANSFORMATION NEW ASSORTMENT DEVELOPMENT

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Abstract:

Objective. The purpose of this scientific research is to develop dynamic, convenient, and bright models of dynamic, convenient, and dynamic assortments based on the analysis and analysis of the creative and transformational assortments of designers from different countries.

Methods. In the research, products that change their changing and transformational form, clothes, creativity of designers of different countries, scientific researches are analytically studied.

Results. Conclusions were made based on the analysis of the sources, and a new range of dynamic, convenient, bright models of the transformational, shape-changing range were developed.

Conclusion. In conclusion, it can be said that various products and clothes made in the form of change and transformation have become one of the current directions of creativity of designers of different countries. In this article, a transformational new assortment design was developed based on the literature review.

Keywords: Transformational, changing, assortment, invention, useful model, convenient, functional, harmonious, modern, needs.

Introduction. In the 20th century, there was a demand for shape-changing products. In the 1920s, designers began to create universal items that could be used instead of many traditional items. Various products and clothes made in the form of transformation have become one of the current directions of creativity of designers of different countries [1,2,3,4]. Transformations arise from human needs and try to copy necessary (biomimetics) ideas and make their inventions more convenient, functional, harmoniously beautiful. Also, modern, fast-changing assortments should be dynamic, convenient, bright, picture 1 shows such items.

Figure 1. Modern changing bags

Methods. In the research, products that change their shape and transformation, clothes, the creativity of designers from different countries, scientific researches were analytically studied, and based on the analysis and analysis of the creativity of designers from different countries, a transformational new assortment of dynamic, comfortable, bright model samples was developed.

Results and discussions. Many scientific studies have been conducted on transformative changing bags and clothes.

Russian researcher V.E. Bikova has created a versatile packaging handbag for personal items. If the bag is divided into details, it becomes a bag of three different types, its disadvantage is that it is possible to put only light gifts into it, which reduces the scope of use of the bag [5]. N.A. Gennadevych created a useful model for a bag designed to store personal items or a collection of travel accessories [6]. The purpose of the utility model is to increase the efficiency of using the volume of the bag, which includes a bag body with a side pocket. When it opens, it becomes a changing bag, and the upper body of the bag has handles, its advantages are that you can put all your travel essentials in it, and the rest is convenient for carrying personal items [7]. Its disadvantage is the presence of unused volume due to its large size when opened.

The transformational BAG-BLANG bag is known [8], the bag formed on the side of the bag and the details of the bag are placed on the side walls of the product. The side and details are made of at least two layers of materials, in particular, waterproof and natural materials with natural or synthetic fibers, when the parts are opened, a blanket shape is formed. It also includes a box-shaped appearance organized on the bottom and four sides. The sides are designed to fold in at least one direction, the width and length of the bottom is the same as the width and length of the body when fully opened, and it can be used on beaches. Disadvantages of the method - the lack of usability, the bag can only be used as a blanket on the beach.

Researcher Sumiko Yamaguchi has also conducted many studies on transformational assortments [9,10]. One of them, Sumiko Yamaguchi, Takumichi Yamaguchi invented the transformation backpack. A waist bag can hold small items such as wallets and scarves and is worn around the waist. It was popular among motorcyclists, hikers, and travelers, and made it convenient to carry a child while traveling. The advantages of this invention are that it is convenient to carry the baby with the wallet, it helps to hold the baby in the arms, and it can be used as a wallet by hanging back when the hand is tired, Figure 3 [11].

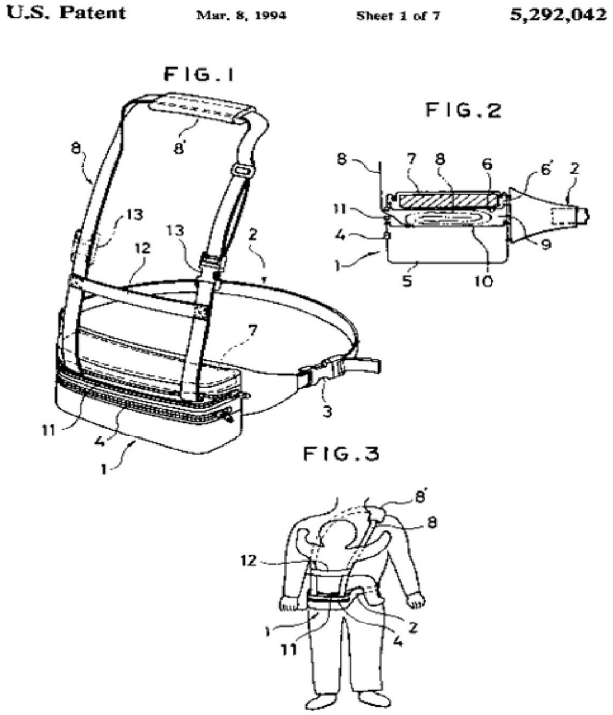

Figure 2. Transformation backpack

Susumu Taniguch designed the baby shoulder bag. This invention is used to carry a baby or toddler along with diapers, cloths and the like, and the baby can be laid down, the disadvantage of this bag is that the inside of the bag is too narrow to fit anything other than the baby's diaper and towel. cannot be used at any other time. [12]. Jeff Zhou and Jason Zhou created a bag for women that comes in three different looks [13]. This bag can be easily used by changing the details, matching it with clothes, combining it. A. Kuznesov developed a useful model for carrying various objects [14]. When fully assembled, this bag is compact and can be used as a small bag to carry small items. When the sides are folded in 2 parts (vertically only), the bag height dimensions change. When the sides and bottom are opened horizontally, the bag changes its dimensions in terms of length and width. When the bottom and sides are fully opened, the bag changes its dimensions in terms of length, width and height, and the volume of the bag increases up to fifteen times. There are several transformation options of this changing bag, all of which retain the most user-friendly, simple and easy-to-use parallelepiped shape and have enhanced functionality. The main problem of these parallel-opening bags is the limitation of usage possibilities and the presence of unused volume due to the same external dimensions, the low efficiency of using the bag volume with different sizes of transport objects.

Also, bags of different shapes, made of waterproof material, have been created to make it easier to use on a bicycle [15,16,17]. One of them is a convertible hooded bag. It allows you to create a bag by folding its elements and can be used as a cycling jacket even when it rains [18]. The jacket-backpack consists of back and front, pockets and sleeves, hood, inner lining, pocket flaps, pocket linings and fasteners, and is shown in Figure 3.

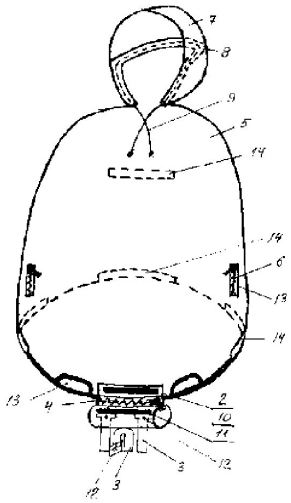

Figure 3. Backpack with jacket

The convertible hooded bag invented. By applying the method of transformation of a backpack with a jacket, the functionality of the clothing is expanded. The technical goal of this useful model is to increase ease of use during transformation. Backpack with jacket is easy to make, weatherproof, lightweight and convenient for country trips.

In order to meet the needs of people, many transformative clothes have been developed, researchers O.V. Chuprova, O.V. Gordeeva, V.A. The Neverovas have created a multi-functional coat. This coat has a double collar and is separated from

the waist: the upper part from the waist looks like a suit, and the lower part looks like a skirt, and the pocket part forms a purse [19]. L.L. Chagina, N.A. Smirnova, A.A. Komarova created the "Transformation pants" model [20]. All the seams of the trousers are connected by a lock, when these locks are released, they are divided into 20 details, when these details are combined, 3 figures are formed: shorts, bag, skirt. The disadvantage of both of these models is that there are a lot of details during the transformation, so it takes a lot of time and mistakes to change their shape. There are also a variety of travel bags that change shape. Beach bags that can be turned into special travel blankets are known among them [21, 22]. This assortment is used in trips. The transformation bag is opened by folding the longitudinal sides of the bag with the right side out in a row, the removable parts are placed on the side folds of the opened blanket, and the bag is turned into a blanket by putting the right sides out. The advantage of the method is ease of use. Disadvantages of the method are the lack of usability, the possibility of using the bag as a blanket only on beaches, the large number of operations to transform it into a transformative form, and the difficulty of production.

Researchers from the Amur State University (Russia) suggested turning the jacket into a backpack when the weather conditions change [23]. The jacket has pockets and a lining, and there are belts between the top and bottom. When turning a jacket into a backpack, the inside pocket of the backpack is turned inside out and the inside of the backpack, the pouch, is formed. To expand the pocket of the backpack, clips are used, which are placed in the pocket. When the back of the pocket and pocket flaps, the sleeves and the hood of the jacket are changed, the pocket is turned outward and the pocket is formed inside. Disadvantages of the method are the large number of operations to convert it from a garment to a backpack, it can only be used as an outer garment that can be folded into itself, nothing can be put inside the bag, and the jacket can be folded as a bag, which has a negative effect on its aesthetic characteristics. the secret

All scientific researches have advantages and ways of solving problems, opportunities given to them. On the basis of scientific research [24, 25, 26, 27, 28] and literature analysis, a new range of transformative bags for children and mothers was developed.

Conclusion. Summing up the conducted scientific research and literature analysis, it should be said that many foreign scientists have conducted research in this direction and created assortments of transformational products for various purposes. All research is aimed at solving human problems and finding solutions to them and satisfying human needs. For example, N.A. One bag can be used for two different tasks through the model created by Gennadevich. If you carry money using the bag as a wallet, you can change its shape when you go to the market or on a trip to put personal items or various items and use it to meet your needs without spending extra money on another bag. Also, transformational bags that turn into a special blanket for travel and make it convenient to use on a bicycle are certainly created based on the needs of people.

All created transformational assortments create comfort and opportunity for people in various conditions. Our Pizdent Sh. Mirziyoyev said "Our main goal is to study the people's problems, find solutions for them, ease their lifestyle by creating favorable conditions and opportunities." Therefore, studying people's problems, increasing the number of transformational assortments that provide convenience for them, and reducing wastage and costs through them are now considered important.

Based on scientific research, marketing research and literature analysis,

a new range of mother and baby changing bags has been developed. The aim is to facilitate the lifestyle of mothers and children by creating comfortable conditions wherever they are through the new transformational assortment.

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EVALUATION OF HEAT CONDUCTIVITY OF SPECIAL CLOTHING

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Abstract:

Objective. The importance of special clothing for workers who are working in closed buildings in the exchange of air (heat) between the human body and the environment has been studied. In this case, as samples of special clothes, the actual special clothes which are made of cotton + polyester fiber fabric of automobile factory workers, the special clothes which are made of 100% cotton fiber fabric taken for comparison, and the special clothes made of cotton + modal fiber fabric is recommended as fabric with high hygienic properties were researched.

Methods. In the research used equipment comprehensively determines the temperature, relative humidity, and carbon dioxide content of the environment under clothing and allows the data to be transferred directly to an application on a mobile phone via bluetooth. Based on the obtained results, the magnitude of the heat flow density between a person - special clothing - external environment was determined using Fourier's law.

Results. As a result of the research, it was determined that the value of the heat flow released from the human body is high based on the research of the indicators of the microclimate of the special clothing made from the new (cotton + modal) fiber-containing fabric.

Conclusion. From the results of the research, it was found that a large amount of heat exchange occurs between the external environment and special clothing made of cotton + modal fiber fabric. The results of the research revealed that special clothing made of cotton + modal fiber fabric has high hygienic properties.

Keywords: special clothing, hygienic properties, modal fiber, thermal conductivity, heat flow, indicators of microclimate under clothing.

Introduction. Currently, the use of fabrics produced abroad, the lack of sufficient information about their quality and properties, significantly complicates the design and production of clothing. At the stage of technological processes of clothing preparation, the sudden manifestation of fabric properties affects the quality and consumption indicators of clothes [1]. As special clothing performs the task of improving the working conditions of workers, increasing work productivity and creating comfort for workers during the shift, the task of producing special clothing from fabrics with high hygienic properties is urgent [2-3]. Hygienic properties of special clothing fabrics should be suitable for climatic conditions or labor intensity. Therefore, special clothing should serve to optimize the parameters of the microclimate under the clothing resulting from the physical activities of workers [4-5].

In studies [6-7], clothes made of modal fiber fabrics belonging to the group of natural fibers or artificial fibers were found to be the most suitable for hot, dry

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