

## ARTS AND LITERATURE

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### THE WAY OF MAKING HAND-MADE TECHNOLOGY AETHETIC AND COMFORTABLE

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#### **Abstract**

The article deals with the popularity of soap hand- making at present, describes the history of soap manufacture and raises the problem of designing special equipment for manual making the product. The offered set for soap making was designed taking into account the carried out research.

**Keywords:** soap making, creative work, equipment, design, ergonomics.

Nowadays hand-made technologies are widely used for making different consumer goods as they are environmentally friendly, creative, easy to organize and allow to produce original and healthy things. Author's products are of great and constant interest and demanded by consumers, sellers, researchers, technologists, designers. Great variety of hand-made techniques includes embroidering, quilling, decoupage, carving, fabric painting, macramé,

**7th International Conference «Recent trend in  
Science and Technology management» 2017, V.2**

decorative soap boiling, etc. Decorative soap making deserves a special attention as it is a rapidly developing direction of creative activity. But manual soap boiling faces a number of difficulties connecting with observation of necessary conditions, the main of which is maintaining the proper thermal regime. The latter needs application of special equipment having high aesthetic and functional properties.

Hand-made soap is attractive not only for its original appearance but useful properties and natural materials, e.g., loofah, grass and flowers are used as a scrub; honey, milk, coffee, chocolate are used for skin softening and pleasant smell.

The history of soap boiling is about six thousand years. The first soap in its modern meaning appeared in Ancient Rome. Soap boiling was mentioned by a Roman historian Pliny the Elder in his treatise "Natural History". Archeologists found remains of soaperies in Pompeii. Soap was also actively used for cosmetic and curing purposes in Arabian countries.

In the twelfth century the epoch of soap boiling began in Europe. The first patent for soap manufacture was given in England in 1662 [1-3]. Extensive building of soap plants began in the seventeenth century and was connected with the development of equipment and technology of soap boiling.

Having developed from craft making to 20-th-century mass production, soap boiling turned back to individual creation at the turn of 21st century. It has been connected with people's need for something unique and made with their own hands. Soap functions are now performed by various washing powders (detergents) and liquids. Solid soap has become a work of art. Masters of this art create amazing soap masterpieces of different shapes, sizes and smells.

But the process of soap making is not so pleasant as its result. Up to present the most spread way of melting the soap stuff has been a steam bath. There is no a device directly intended for the process. Currently used analogues have bowls either of too small volume or too big one. Moreover, there is only one reservoir in all familiar analogues and that complicates the process of making a composed soap of different colours or fillers. At last, the given devices do not meet the aesthetic requirements for a consumer good used for creative work. The portrait of a potential user of the device must define the shape of the considered product, its materials, aesthetic aspects, colour solution and sensory perception.

There is professional equipment for soap boiling and it allows to create samples of high quality. But this kind of equipment makes the process very complicated and not ergonomic. The considered creative work must not depend on available large studio. Compact equipment intended for making a small amount of soap is of great demand. The considered device must be

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Science and Technology management» 2017, V.2**

portable in order to be carried around easily. Author work need author equipment which is aesthetically arranged and comfortable.

In order to solve the problem the research was carried out using the following methods - observational questionnaire-based study of consumers' preferences; marketing research of goods intended for soap boiling; the method of visual fixation. Ergonomic solution of the model was found by the method of measuring the working face of analogue models and analysis of average statistical anthropometric data.

As the result a soap boiling device was designed which is characterized by compact a shape and a size, removable handles and an adapter for connection to the mains. It is suitable for transportation and allows to use removable parts of the construction. The offered electrical appliance was designed taking into account ergonomics; it has smoothed shapes without sharp angles. The construction does not cause injuries.

In order to provide portability the device is completed by a case for carrying. The case is characterized by maximum safe round shape and has side drawers-organizers for keeping instruments.

For comfortable transportation the handle can be fixed, i.e. it can move up and down but does not move sideways in order not to shift the center of gravity and cause discomfort of the owner. The handle is also finished with a spongy panel in the place of contact with fingers.

The comfort of closing the case is provided by a flap cover of the construction which is fixed in the side surface and moves sideways from the facing part of the case opening the handles - cavities for removing the top level of the hand device. All the buttons are of round shape with diameter of 2 cm. There is a horizontal socket for fingers with deep of 4 cm in the juncture of the top part of the device.

The whole set «Soap Studio» (fig. 1) includes a case, having two side organizers for instruments, a removable layer -container for the electrical appliance and its arrangement, the appliance itself with removable cover, four tanks for melting soap stuff and four correspondent removable handles. The removable top handle with length of 15 cm is characterized by spongy shape narrowing in the centre, widening sideways and ribbing for fingers at the bottom. All these features make the handle more comfortable and safer as limiting its sliding in a hand.



**Fig. 1 - a set «Soap Studio»**

Attachment of the removable handle to the tank for melting soap stuff is performed by clip gripping. A button-slider moves the top part of a clip for 2 cm and then locks it and fixes it tightly [6,7]. The shape of the sliding button is made with a curve for a thumb and a projected forepart from the side of comfortable pushing the clip. In the completed state the appliance is characterized by smooth round forms, a transparent cover with S-shaped curve of a handle which emphasizes the firm style of the set.

The appliance panel of the designed model as well as the cover handle are contrasted in a shape and a colour. This is not only the way to accentuate the design of the product but also to reduce fast tiredness of a user when working with the device [1,4,5]. The portable case also emphasizes stylish and associative orientation of the set by the aesthetics of simple streamline forms. The model of the case body is designed for making opening process more elegant.

The container itself has side cuts for comfortable pulling-out of the device. Immediately opening bottom part of the case is intended for auxiliary materials and tools for making decorative soap. Thin rubber coating «soft-touch» applied on plastic parts of the set prevents the device from sliding, makes the surface matt and saves the aesthetic appearance without dirty spots and scratches. Design of the offered set of equipment makes a creative atmosphere and encourages an author for new ideas [8,9].

Making author's soap using the designed equipment has a number of advantages which are the following: the proper amount of the received soap, the necessary conditions for soap boiling, variability of products even within one operation, aesthetic appearance.

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Science and Technology management» 2017, V.2**

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