

TRENDS ON USE EDITIONS WITH REATTACHABLE ELEMENTS

Analysis of the publishing market of Ukraine showed that there is an interest of buyers in interesting designs of editions, namely such products as souvenir, gift, advertising type, personalized. One type of publication is an edition with reattachable and interchangeable block elements.

There are a number of advantages to the general performance of editions with interchangeable elements that differentiate them from editions in the traditional way of fastening (i.e. sewing (thread or wire) and glue): the ability to change items, replenish with new, clean sheets and blocks, also has the ability to change the order of notebooks, pages.

Patent analysis has been conducted to identify trends in the use of such publications, trends in their development in the world. The geography of the study designs of the publications covers many countries. Among them are the developing countries of the patented publications in recent years, namely: USA, UK, Spain, Italy, Germany. In addition, many developments are in such IPC classes as B42D1, B42D13, B42D17, B42F13, D21H17, G09F1, which are not directly related to printing products.

Patents have been analyzed for different classes of IPC, including varieties of variable-element designs, or improvements to fasteners, removable elements. More than 70 patents have been found to demonstrate trends in this area over the last 11 years. But an in-depth analysis of more than 50 years has shown continued interest in the subject. More than 400 patents have been found. The search results for recent years are presented in fig. 1.

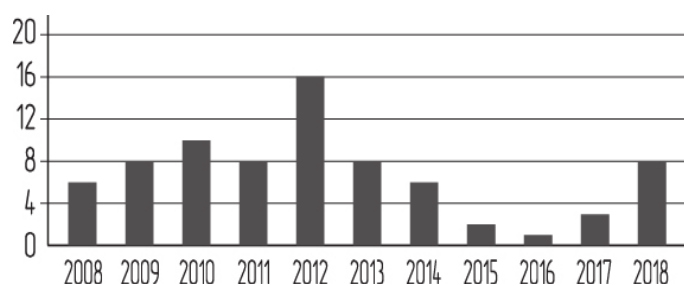


Fig. 1. Dynamics of patent registration by years

An analysis of the dynamics of patent registration by years indicates a steady interest in this issue worldwide, especially in the United States, where over the past 11 years, 50 % of all patents found have been patented (fig. 2).

The designs known today include the following: binding with rings, metal holders, elastics, disc-binding system, magnetic rod edition, editions with a rod, with swing clip durable, and an origami clamping system. Each

of the constructions has its advantages and disadvantages, but they all combine the ability to quickly replace the main elements of the block.

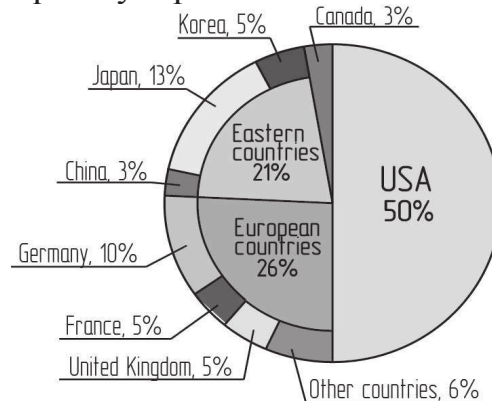


Fig. 2. Dynamics of patent registration by countries

But the lack of systematization of editions' constructions, with variable elements in structure, the lack of a comparative analysis of technological costs, slows the implementation of the manufacture of these designs by printing companies.

According to the results of the research, were presented an analysis of existing constructions of editions, which have variable elements in its structure. The systematization of these structures was carried out and the tendencies of their use were established.

On the basis of the analysis, a generalized classification of editions with variable elements was developed, which combined the technological features of their production, materials, elements of construction and basic purpose. Types of binding materials are also generalized. Among the main highlighted: paper and cardboard, wood, leather and artificial cover materials. The conducted research of existing designs of editions with variable notebooks showed significant advantages of analyzed structures in certain spheres of human life. Often, the use of these species occurs in the production of white products, as well as leisure and entertainment.

According to the results of the previous studies, the results of the analysis of the advantages and disadvantages of such publications are presented. In addition to the general advantage for all these constructions, that is, changes in the elements of the block, the following benefits are also highlighted: change order notebooks; quick attachment / disconnection of items; interactive use; and disadvantages: limited volume of variable elements; rapid wear of origami fasteners; complexity of execution of manual operations; for designs with magnetic core – attach of extra metallic objects that are within the limits of magnetic influence; for the designs with a wooden rod - the loss of the main element (rod) leads to the destruction of the entire structure.