

PATENTOLOGICAL ASPECTS OF ENGINEERING

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The development of engineering plays an important role in the development of the investment economy [1]. It is known that "engineering", "engineering activity" and are synonyms [2]. From the standpoint of engineering, patentology can be primarily connected with pre-project and project studies of various technologies. Methodological aspects of the development of production technologies include their groups: production, processing and assembly; design and engineering; communication and management; equipment for auto-monitoring; integrated management and control; production information system; trucking [3,4].

From the standpoint of patentology, technical objects are considered simultaneously and as patents. The main information base for the formation of the patent locus is the original search patent cluster. It consists of a thematically limited search area of the patent space. The patent locus is part of the patent cluster. A patent cluster is a thematic collection of patents, interconnected by functional vertical and horizontal links (links of groups of inventions forming a patent locus). In this case, the patent clone is formed by the patent information chain of modifiable characteristics of prototype technologies. Horizontal functional connections form the information section of the patent locus, through the patent objects of the last generation and their patent-technological analogs [5].

In patentological studies, an important role can be played by various objects of patentology, considered as technologies in various areas of industrial activity. For example, in construction, the technological properties of building materials are usually considered in terms of the ability of the material to perceive technological operations in order to change the shape, size, density [6]. These properties include viscosity, fluidity, thixotropy, adhesion, cohesion. From the standpoint of patentology, the production of building ceramics, glass, hydraulic binders (romantsement, portland cement, composite cements, etc.), materials and mixtures for mortars, plastics, heat-insulating and varnish-and-paint materials, metal materials and products are technologically attractive.

Over the past decades, new developments in the field of additives can be attributed to intensive trends in the development of concrete technology, which is confirmed by the number of patents obtained [7]. Of interest are patent developments on cement intensifiers, fade reducing agents, water repellents, lightweight and expanded fillers, gypsum mortar, cement clinker production, reinforced concrete, light foams, refractories, gypsum.

In the aspect of labor safety in productive activities, the strategy of patent studies of patent clones can be presented in the following ways [8]: safe technology and technology for the prevention of occupational injuries; sanitary and technical support of labor of workers.

Thus, patent studies of patent clones can be applied in the engineering process, which will allow to optimize the result of this activity.

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