

ORE AND ROCK MINING SYSTEMS.

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Abstract: This article considers two options of mineral support ore and rock collapse class, testing the installation depending on the subsoil welds and court conditions when it is used. The massive methods of placing mountains are discussed.

The unique feature of systems belonging to this class, which differs from other systems, is that when the massif of ore under the floor or on the floor is cut from the bottom or from the sides, it collapses by itself under the influence of its own gravity, and during the extraction of the collapsed ore above it Covering rock also collapses and fills the void created by collapse. In the process of extracting the collapsed main ore mass, the collapsed rocks above the extracted ore also fall down. The most characteristic features of systems of this class are structural elements and technical economic indicators that determine the conditions of their collapse. Systems belonging to this class consist of subfloor collapse, forced floor collapse, and floor self-collapse systems. This system is widely used in ore mining due to its many advantages. The underground mining system is widely used in the underground mining of iron ore deposits. This system is also

in Uzbekistan. This mining system can be divided into two types according to the nature of the ore to be crushed and the ore-bearing rock: subgrade separation with cover mats and subgrade mining without cover. These systems depend on the nature of the ore-bearing rock and rock contacts directly determined. Wooden mats and metal nets (wire nets) are used as separators. Therefore, the conditions of application for these different types of appearance are not the same.

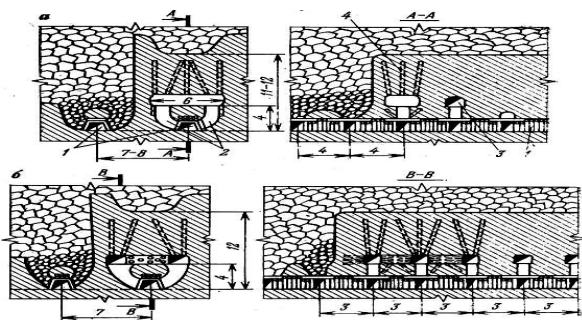


Figure 13.1. panel "closed fan-shaped" option

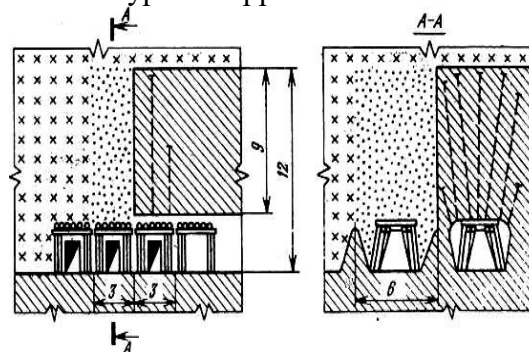


Figure 13.2. extracting the panel without

leaving slimes. mining option.

The options for collapsing the sub-floor, according to the method of crushing the ore (with small spurs, bar spurs, and wells), and the method of removing the ore from the block (by means of shafts, loading by lowering the base of the sub-floor solder and removing the block from the side in vibrating devices, or zi in mobile equipment, block cutting, and bottom cutting), are different from each other. "closed fan-shaped version" of subfloor collapse. In order to determine the essence of subgrade excavation, we will consider the option of "closed fan-shaped" placement. This excavation system has been widely used in the mines of the Krivoy Rog ore basin for a long time. Currently, this option is used in a limited capacity. The stage of cutting the panel begins with the passage of the corridor, that is, cutting the sides and the upper part of the section connected to the corridor. The reduction in the number of ore-loading ladles provides an opportunity to reduce the size of the multi-hole loading scheme, which in turn leads to an increase in the productivity of workers engaged in intra-mine transport. If the ore is transported from the subfloor on self-propelled trucks or loaders, it is not necessary to carry out a separate ore-loading solder in each panel; it is enough if one or two ore-loading solders are passed through the block. options for the subfloor collapse system. The most common option at the present time is the method of mining ore with deep wells. In the Krivoy-Rog mine basin, the comparative number of subsurface mining options is more than 90%.high productivity, safety of work, and the possibility of using it in various conditions, this system's options ensure an even wider spread of this system's options. The main condition for the use of this system is the possibility of using ore deposits with a thickness of 15-20 meters and more, with an ore strength coefficient of $f = 3-12$. Like other options, this system is not suitable for mining precious ores due to the high amount of loss and degradation of ore. The 60-80-meter-high floor is divided into two to four sub-floors. It is used in cases where the ore body has a near-steep slope, with a maximum height of 30–40 meters below the floor, and in sufficiently stable ore and ore-bearing rocks.

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