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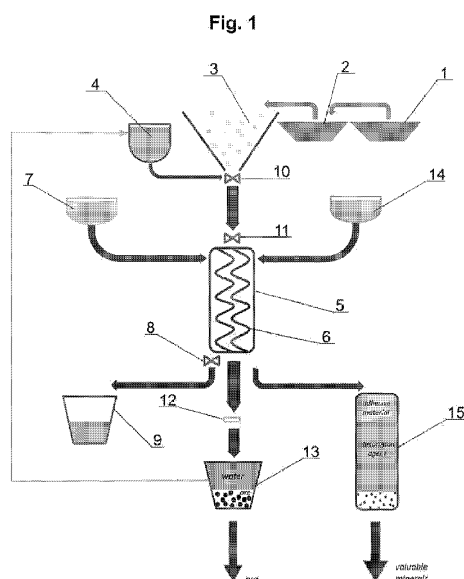
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(54) Title: METHOD OF SEPARATING GRAINS OF VALUABLE MINERALS, PRECIOUS METALS, RARE-EARTH METALS, PRECIOUS AND SEMI-PRECIOUS STONES FROM NATURAL ORES IN THE AQUATIC ENVIRONMENT BY MEANS OF THE PHENOMENON OF ADHESION



(57) Abstract: The method of separating grains of valuable minerals, precious metals, rare-earth metals, precious and semi-precious stones from natural ores in the aquatic environment by means of the phenomenon of adhesion, consecutively covering known stages such as: - initial separation consisting in sieving fractions up to 5000 μm from alluvial (rubble) ore or crushing primary (rock) ore to a fraction causing the separation of valuable minerals from gangue and where appropriate separating ferromagnetics from ores by means of a known method; - forming the suspension by mixing the initially separated fraction of ore with liquid; - adsorption of valuable minerals from the suspension on the adhesive coating and also recovering water from the process; - desorption of particles of valuable minerals from the adhesive coating according to the invention is characterised by the fact that for the formation of the adhesive coating in the separator, lanolin or its mixtures with additives are used, whereby, the content of lanolin in the mixture may not be less than 80%.

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