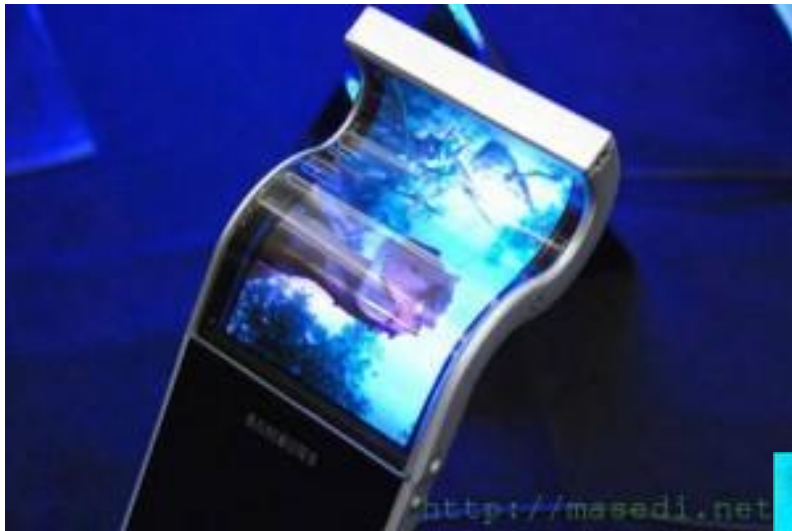
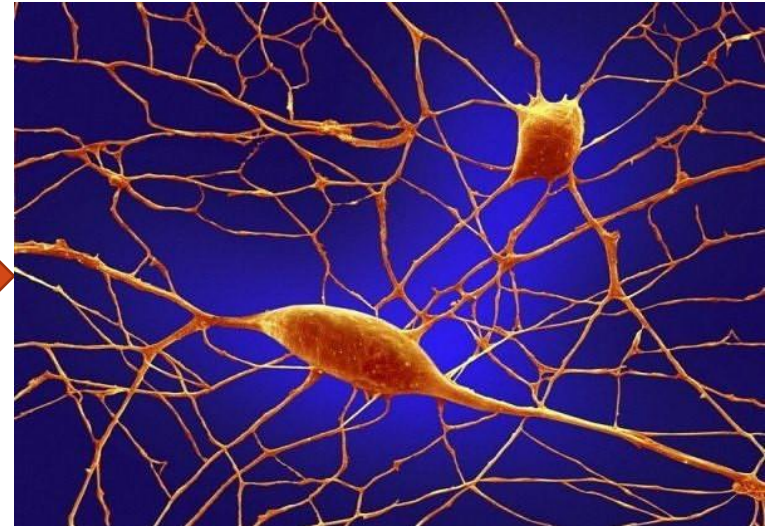
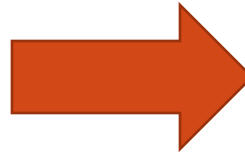


PHYSICS, CHEMISTRY AND GEOMETRY IN INVENTIVE TASKS



MACROMECHANICS

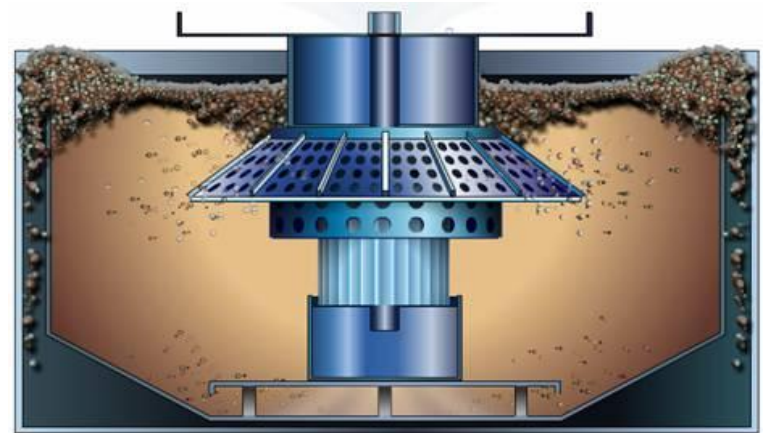


MICROCOSM

29.04.2014

Extractive industry

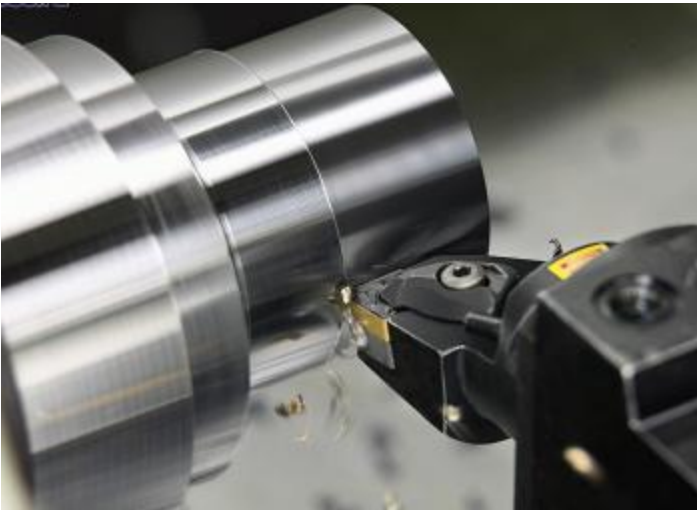
Mechanical ragging and rise to the surface



Leaching of the ore body

Manufacturing

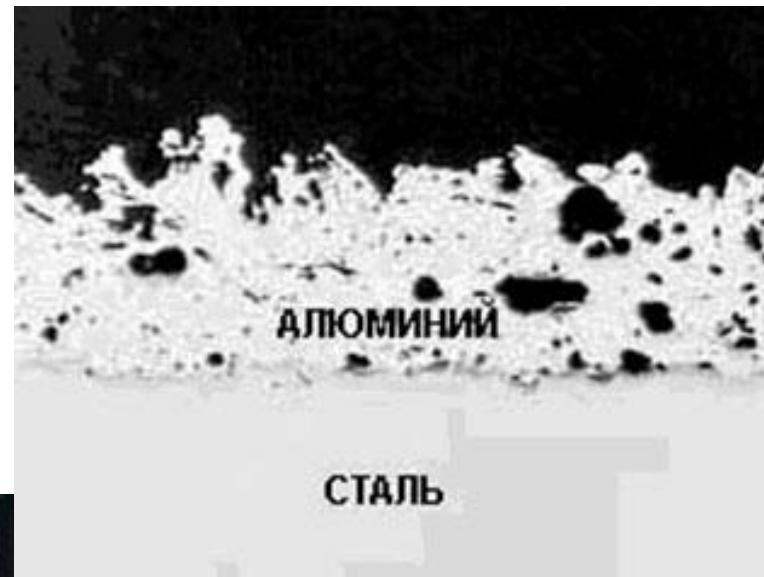
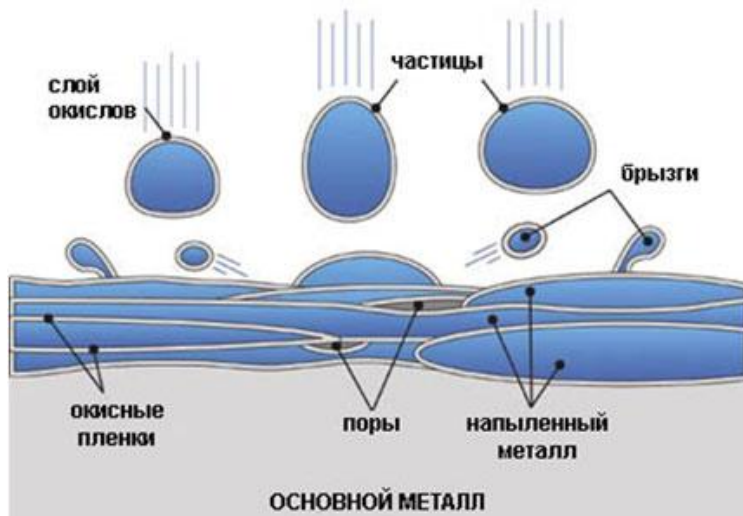
Machining



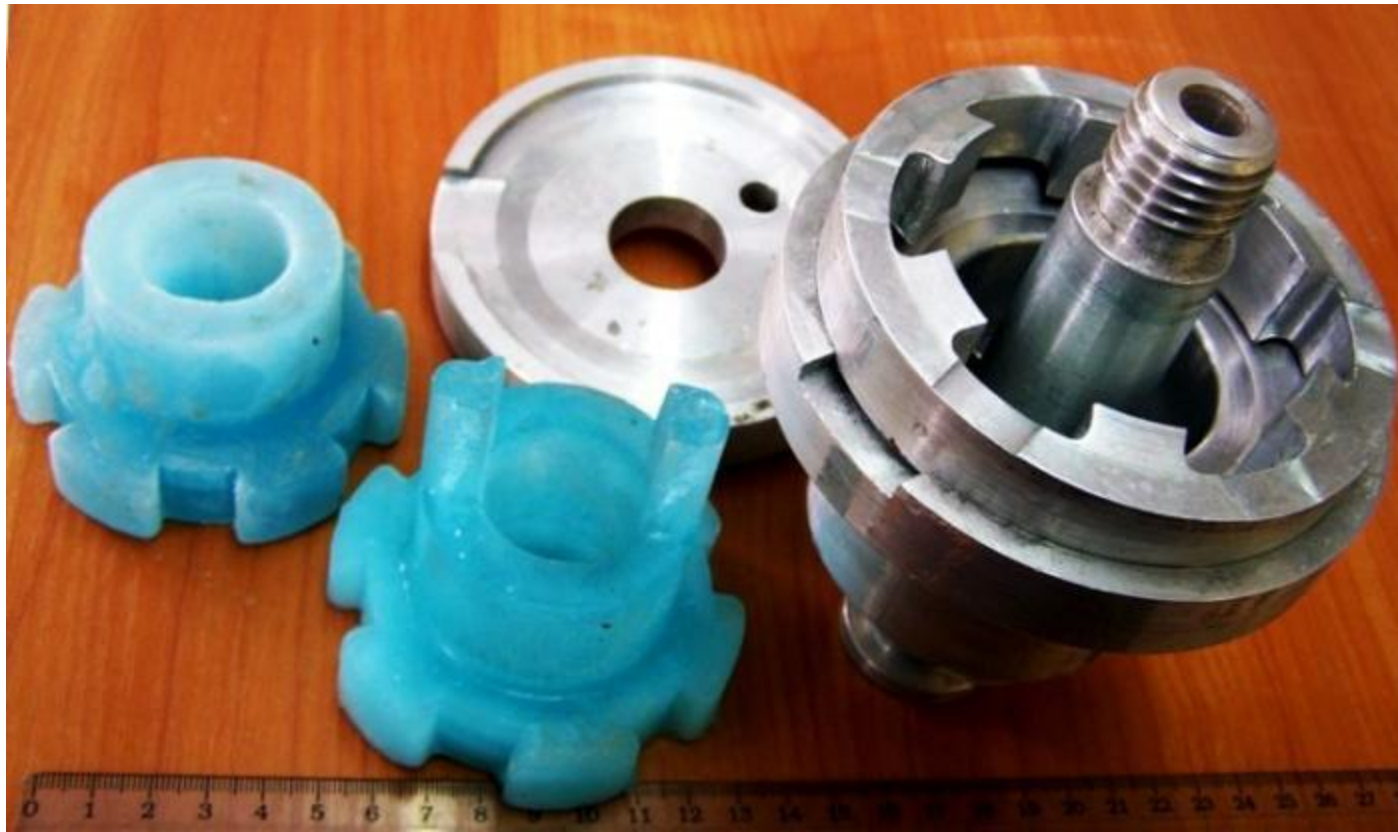
Cultivation of crystal

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Surface metallization



Metal Eco-cryo-cast with ice models

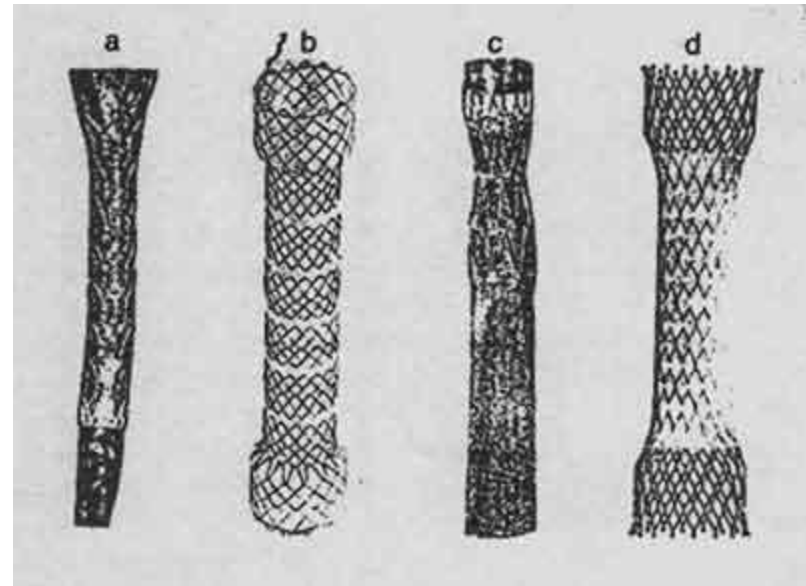


Metal casting with centrifugal force

Example
A.c. 232 450:
getting of objects with
paraboloid form



Memory effects: TiNi-based alloys



Allocation of metal in the volume

- it is possible to get wood-metal or metal in the other pore objects
- photosensitive glass – due to reversibility (decay-formation) of silver chloride



Water Magnetization



29.04.2014

PHASES CHANGES

- 1-nd phase change



PHASES CHANGES

The 2-nd phase changes
examples:

- liquid helium change to super fluid state
- ferromagnetic change to paramagnetic under Curie peak
- alloys crystals inversion etc.



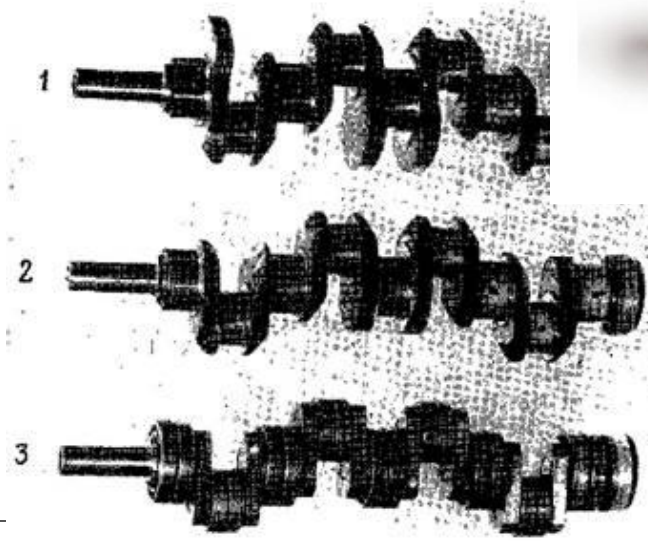
Geometry: curvature

- Instead of using rectilinear parts, surfaces or forms, use curvilinear ones; move from flat surfaces to spherical ones; from parts shaped as a cube (parallelepiped) to ball-shaped structures
- Use rollers, balls, spirals, domes
- Go from linear to rotary motion, use centrifugal forces

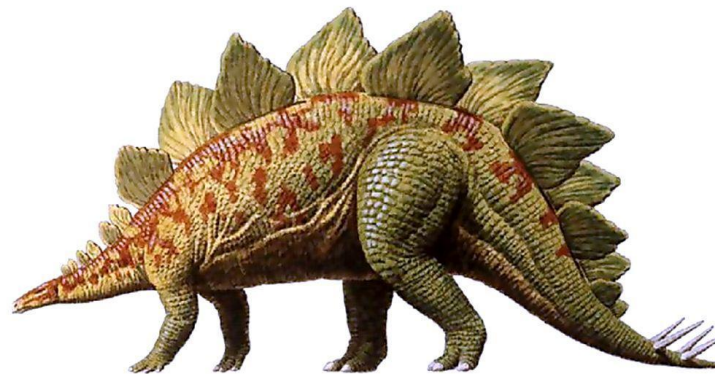
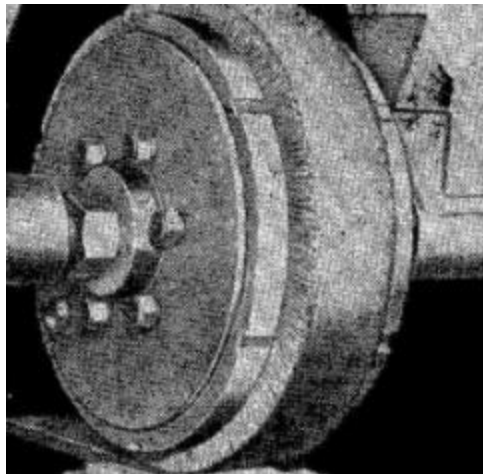
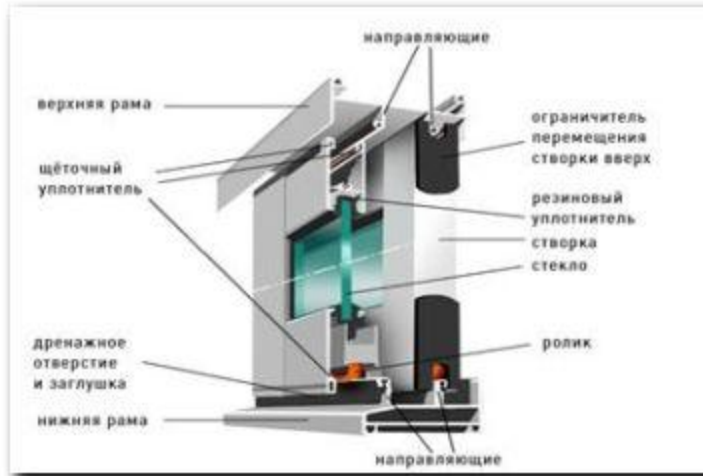
Geometry: curvature



Geometry: curvature



Geometry: brush



Geometry: granular bodies

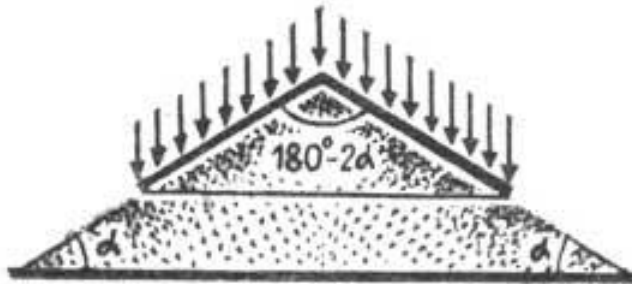


Рис. 1.

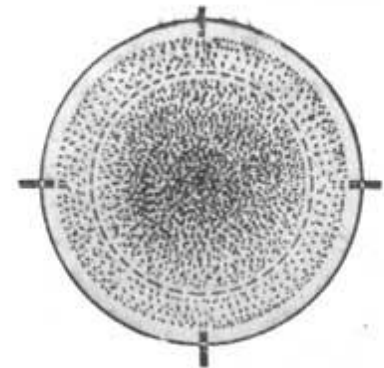
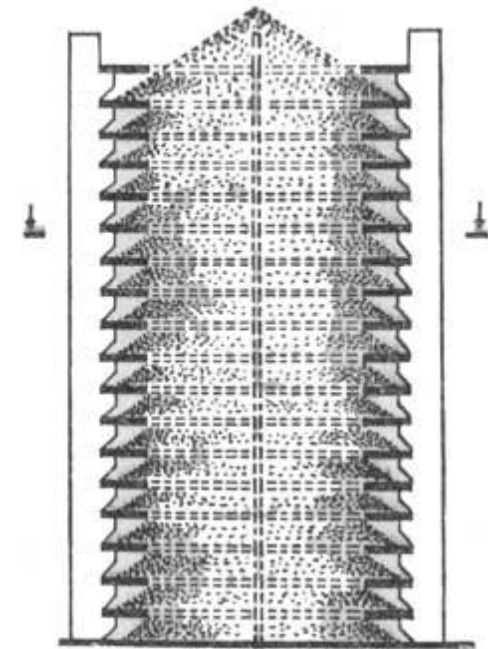


Рис. 4.

Geometry: spirals

