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The invention relates to the mechanical engineering, namely to gear-wheel working.

The process for precession gear-wheel working consists in that the blank is communicated a rotary motion about its own axis, the working is carried out with a tool, the axis of which, like the axis of the worked gear-wheel, passes through the centre of precession. The blank is additionally communicated a spherical three-dimensional motion about the centre of precession, at the same time the tool is rigidly fixed about it.

The device comprises a frame, onto which it is mounted the tool and a mechanism for rotation of the worked gear-wheel about its own axis, installed onto a base. The device additionally includes a U-shaped bracket, fixed onto the frame, into the bracket supports there is articulately mounted an axle of the spider, and onto the second axle thereof there is articulately mounted a U-shaped holder, onto which it is installed the base for fixation of the worked gear-wheel. The base and each of the spider axles are coupled with servomotors. The tool, rigidly fixed onto the frame, and the servomotors are connected to a computer control system. The tool may be made in the form of a laser ray, water jet, electron beam, X-rays or electroerosion wire.

Claims: 7

Fig.: 7