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The invention relates to mechanical engineering, namely to planetary gears.

The sinusoidal circular gear comprises a gearwheel (9) with teeth of curvilinear profile and a gearwheel (10) with teeth of arc profile (8). To obtain the curvilinear profile of the teeth of the gearwheel (9) is used the kinematic diagram of the crank mechanism which includes a crank (1), during the rotation of which, by means of a rod (3), the tracing point (4) executes reciprocating motions, which are projected on an imaginary plane (5). When the imaginary plane (5) performs a complete revolution, the crank (1) performs n complete revolutions and accordingly the tracing point (4) executes n complete reciprocating motions, which are projected on the imaginary plane (5), thus its projection on the imaginary plane (5) describes a theoretical profile (6), where n is equal to the number of teeth of the gearwheel (9). The theoretical profile (6) is a circular sinusoid. The tooth of arc profile (8), whose center is situated and moves on the theoretical profile (6), forms with the peripheral surface a real profile (7) of the gearwheel (9).

Claims: 2
Fig.: 8