a 2003 0149

The invention relates to the mechanical engineering, in particular to the variable-speed gears, and may be used in the planetary precession transmissions.

The planetary friction variable-speed gear, according to the first variant, includes a carcass (12), wherein it is placed a satellite gear (10) with spherical ring, rigidly joined with a driving shaft (1) with eccentric and comes in contact with a central wheel (8), rigidly joined with a driven shaft (9) as well as a satellite gear slope regulator device. Novelty of the invention consists in that the eccentric of the driving shaft (1) is joined by means of a ball socket (2) with a carrier (3), containing a cylinder (4) and an axle (5), installed therein with the possibility of axial displacement about each other and joined by means of another ball socket (6) with the eccentric of a support shaft (7) installed coaxially to the driving shaft (1), at the same time the satellite gear (10) installed onto the carrier (3) is joined with the carcass (12) by means of a connective, between the central wheel (8), with the contact surface made plane, and the carcass (12) there are placed elastic elements (17) and an axial bearing (18), and the satellite gear slope regulator device consists of two screw-nut type transmissions (13) and (15), set in motion by the electric motors (14) and (16) and joined the first – with the driving shaft (1) and the second – with the support shaft (7).

The planetary friction variable-speed gear, according to the second variant, is characterized in that the cylinder (4) is mounted with the possibility of axial displacement onto the axle (5) placed therein and joined with a fixed ball-and-socket hinge, and the satellite gear slope regulator device consists of a screw-nut type transmission (13), set in motion by an electric motor (14) and joined with the driving shaft (1).

The connective may be made in the form of bellows or curvilinear studs.

Claims: 4
Fig.: 3