

A harmonic gear mechanism includes precessing, movable and fixed wheels with spherical working surfaces connected by means of solids of revolution arranged as balls placed in zigzag-like roll tracks. Zigzag-like roll tracks are provided on spherical surfaces of precessing, movable and fixed wheels. Nearest distance from side end of precessing wheel, from the inner ends of the fixed and movable wheels to axis of roll track exceeds radius of the ball more than two times. On the movable and fixed wheels placed in radial position technological opening is provided, in its cavity plug is placed, at that each opening is connected to zigzag-like roll track.