

A machine for sharpening the beet-cutting knives concerns the sugar industry equipment. The machine consists of the body, the drive, the feed gear, the knife holder, the guide and the sharpening tool. The knife feed gear is made as a cam having an eccentric profile with the ratio $R_{\max}/R_{\min} = (1...8...8)$. At the cross section the cam surface is formed by projections corresponding to the surface elements of the knife working part and forming a spiral surface in the sector $30^\circ...200^\circ$ which while turning seizes the knife, moves it to sharpen other knife elements, and disengages the knife with the cam after the sharpening. This feed gear allows to simplify the machine structure, reduce the quantity of base surfaces and to increase reliability in work.