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(51) International classification	:B62M0001360000, B62M0003000000, B62M0003060000, A63B0022060000, B62M0003040000	(71)Name of Applicant : 1)Amit Kumar Mandal Address of Applicant :Flat No. 102, Plot No. 20, Dakshinpuri B, Shrikishanpura ----- 2)Harshita Joshi 3)Rajveer Singh Name of Applicant : NA Address of Applicant : NA
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(57) Abstract :

The speed and effort adjustment of a geared cycle is rendered by multiple-sprockets in rear wheel with shifting chain on the sprockets. However, the same goal can be achieved by changing the crank length of the pedal. In the proposed mechanism, an innovative pedal mechanism is designed in which the length of crank arm can be adjusted manually according to desire of the rider. The main component is the PCSS (Pedal crank to sprocket shaft connector) which the connecting link between the pedal crank arm and the driver sprocket shaft. The pedal crank arm can slide through the pedal crank hole of PCSS and then locked by the help of crank arm key screw. The rider can manually adjust the length of pedal crank arm according to his comfort. The greater length of crank arm would reduce the effort applied to turn the driver sprocket while smaller length would increase the effort.

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