

ABSTRACT

**TITLE OF INVENTION:- GEAR-SHIFTING MECHANISM CONTROLLED AND
COMMANDED BY A GOVERNING UNIT IN AN
AUTOMATIC CONTROLLED WAY**

The present invention relates to a gear-shifting mechanism controlled and driven by a governing unit in an automatic and controlled way and manually driven by an operator. This mechanism actuates in constantly meshed gear pairs acting in an exclusive way, that is, only a gear pair will be active through this shifting mechanism, on this set of assembled gear pairs, all of them in two of the same shafts, one for movement input and the other for movement output.

The object of this invention is to offer a new conception of shifting mechanism actuating on the clutch between the motor (engine) and the transmission when the power transmission assembly has a clutch actuating towards selecting and engaging a speed or a gear pair for the operation, thus synchronizing rotation. The shifting mechanism actuates by releasing the clutch in order to permit the selection of the gear pair to be made from a set of constantly meshed gear pairs and once made the selection of said gear pair, the shifting mechanism synchronizes the rotation of the rotary members which are active during operation and once synchronization is achieved, the shifting mechanism provides for the engagement of the selected pair for operation. Once this step is attained, the shifting mechanism causes the clutch between the motor (engine) and the transmission is closed and thus rotation and torque are now transmitted through the engine (motor) transmission to the output.

Figure 1 of the drawings should accompany the abstract when published.

