

ABSTRACT OF THE DISCLOSURE
DOOR HINGE DEVICE

Disclosed is a door hinge device. The door hinge device comprises a first support element having a rotary cylindrical part; a second support element having a pair of fixed cylindrical parts; a plug member locked to the rotary cylindrical part; a rotational shaft rotatably supported by the plug member in the rotary cylindrical part; a torsional coil spring wound around the rotational shaft; a first ratchet wheel fitted into one fixed cylindrical part such that it cannot be rotated and having first axial ratchets; a first cam member fitted into the fixed cylindrical part such that it cannot be rotated and having an axial camming protrusion; a second cam member inserted into the fixed cylindrical part such that it can be rotated and moved in an axial direction and having an axial camming groove into which the axial camming protrusion can be engaged; a second ratchet wheel inserted into the second cam member such that it can be rotated integrally with the rotational shaft and can be moved in the axial direction and having second axial ratchets which can be engaged with the first axial ratchets; a cap member fastened to the rotational shaft; and a coil spring wound around the rotational shaft between the second ratchet wheel and the cap member.

[Fig. 1]