What is claimed is:

1. A door curtain anti-dropping device for a rolling door comprising: at least a gear box having a force input end connected to an output end of a door operator, and a force output end connected to a winding shaft of a door curtain; the anti-dropping device further comprising:

a worm disposed in a first direction of the gear box, the worm having one end pivotally mounted on the gear box, and the other end coupled to an output shaft of the output end of the door operator;

a drive shaft disposed in a second direction of the gear box, the drive shaft having one end pivotally mounted on the gear box, and the other end driving the winding shaft of the door curtain;

a worm wheel with a plurality of gear teeth fixedly mounted on the drive shaft, and having a plurality of elongated slots arranged at a set angle (θ) on one end face at predetermined positions; the elongated slots each comprises a minor axis and a major axis having a center passing through a radial longitudinal axis (Lv) of the worm wheel, and the major axis deflects by a predetermined angle with respect to a radial transverse axis (Lh) of the worm wheel;

a driven wheel rotatably mounted on the drive shaft and having one side facing the worm wheel, the driven wheel having a plurality of teeth, the worm wheel and the driven wheel being in engagement with and driven by the worm synchronously; the driven wheel having a plurality of elongated holes arranged at another set angle (θ') on a radial end face at predetermined positions, and at least a portion of the elongated holes overlaps the corresponding elongated slots; the elongated holes each comprises a minor axis and a major axis having a center passing through a radial longitudinal axis (Lv') of the driven wheel, and the major axis deflects by a predetermined angle with respect to a radial transverse axis (Lh') of the driven wheel;

a limiting disc fixedly mounted to the gear box to restrict the driven wheel from moving axially, and having a groove with a predetermined radius and width on an end face facing the driven wheel; and

a plurality of latching pins each having a first end extending through the respective elongated hole of the driven wheel and accommodated in the respective elongated slot of the worm wheel, and a second end accommodated in the groove of the limiting disc; wherein

the major axis of the elongated slot and the major axis of the elongated hole are perpendicular to each other, and are orientated in opposite direction, and the center of the major axis of the elongated hole corresponds to the center of the major axis of the elongated slot;

when the gear teeth of the worm wheel are excessively worn or broken, and results in misalignment with the teeth of the driven wheel, the latching pins translate to be received in the

groove of the limiting disc, thereby locking the worm wheel and prohibiting the winding shaft of the door curtain from rotating.

2. The door curtain anti-dropping device as claimed in claim 1, wherein a pair of elongated slots are provided diametrically opposite each other on the worm wheel, and the major axes of the elongated slots are parallel to each other.

3. The door curtain anti-dropping device as claimed in claim 1, wherein a pair of elongated holes are provided diametrically opposite to each other on the driven wheel, and the major axes of the elongated holes are parallel to each other.

4. The door curtain anti-dropping device as claimed in claim 1, wherein a center line of the groove of the limiting disc corresponds to the center of the major axis of each elongated hole and the center of the major axis of the elongated slot.

5. The door curtain anti-dropping device as claimed in claim 4, wherein the latching pins each includes a lip projecting radially outwardly from the second end; the groove of the limiting disc has a width corresponding to the diameter of the lip, thereby allowing the lip to pass through the groove, and a radial inner groove is provided at the inner end of both sides of the groove longitudinally.