

CLAIMS

1. A device for positioning a coronary stent within coronary arteries, characterized in that it comprises a body with a screw rotation wheel whose upper portion projects over the body and the lower portion is arranged inside the body and is rigidly connected to a horizontal screw having a slider arranged thereon slidably along the screw and a cam moveably arranged on the screw spherical member horizontally to the screw with the hoes provided on the axis of said cam, said hoes being pressed together by a rubber coupling, said body having a truncated shape in its front portion and recesses adapted for being held by the operator's left hand, and a rear upper body portion arranged as a tail portion to provide a palm rest for the right hand, wherein a transparent rectangular window for a control bar is provided in the upper body portion and through holes are provided in the front and rear body portions for the delivery system with the coronary stent, a lock button is accommodated in the lateral body portion with its inner side arranged inside the body and comprising a rectangular plate centered by two lateral stiffening ribs arranged inside the body and enabling the plate to freely move into the body towards the wedge provided on the opposite side of the slider and comprised of a lateral wedge member and a cone-shaped wedge member with the lateral wedge member arranged within the lateral hole in the slider on the lock button side and formed by a cutoff at an angle of 45 degrees on one side and at an angle of 90 degrees on the other side opposite to the lock button, wherein on the side cut off at an angle of 45 degrees the lateral wedge member is arranged end-to-end to the cone-shaped wedge member whose lower end portion is respectively cut off at an angle of 45 degrees and the opposite upper portion comprises a cone projecting from the hole in the slider on the hoes side and contacting the same, in the lateral and cone-shaped wedge members, holes are provided through which, when the hoes arranged on the slider are unlocked, the coronary stent delivery system advances, a spring is secured to the slider wall on the side opposite to the lock button, said spring contacting, via the lateral through hole in the slider, the lateral wedge member end at the point of the 90° cutoff.

2. The device according to claim 1, characterized in that the body is made of medical-grade plastic provided with a moisture-resistant coating where it contacts the operator's hand.

3. The device according to claim 1, characterized in that the body tail portion is formed moveably along the body on lateral cutouts and is lockable by means of locks arranged on its sides in the front part thereof.

4. The device according to claim 1, characterized in that the delivery system with the stent is locked in advance therein.

5. The device according to claim 1, characterized in that a hollow tube is introduced in advance therein for accommodating the delivery system with the stent therein.

6. The device according to claim 1, characterized in that the device is provided using a worm gearing, toothed gearing and rope transmission.

7. A method for operating a device for positioning a coronary stent within coronary arteries, characterized in that the coronary stent delivery system is placed in the device body by depressing the lock button arranged in the lateral body portion, wherein its inner side, arranged within the body and comprising a rectangular plate centered by two lateral stiffening ribs arranged within the body and enabling the plate to freely move into the body towards the wedge, exerts pressure on the rounded surface of the lateral wedge member arranged in the lateral through hole in slider on the lock button side and cooperates with the cone-shaped wedge member at the point of the 45° cutoff on one side for displacing the cone-shaped wedge member towards the hoes and with the spring arranged in the lateral through hole in the slider on the side opposite to the lock button at the point of the 90° cutoff of the slider, the cone-shaped wedge member releases the hoes pressed together by the rubber coupling to form a through hole for accommodating the delivery system within the device, and when the lock button is no longer depressed, the lateral wedge member returns to its initial position to leave space for the cone-shaped member so that the hoes contract to lock the delivery system within the device, whereafter the screw rotation wheel is rotated for translating the rotational movement of the wheel into the linear motion of the slider with the locked delivery system to a required distance both back and forth inside the coronary vessel.