Patent claims

1. An electromechanical rotary lock cylinder having a stator (5) and a rotor (10) mounted therein, having a blocking element (25, 64) which is mounted in a bottom part (8) of the stator (5) and, in a locked position, engages in the rotor (10) and, in an open position, releases the rotor (10), and having an actuator (17, 78) which can be controlled in dependence on information arranged on a key (2) and which, in a blocking position, fixes the blocking element (25, 64) and, in another position, releases the same, characterized in that a latch element (33, 63), which engages in the key channel (11) of the rotor (10) and can be moved by the key (2), is provided in order to displace the released blocking element (25, 64) from the locked position into the open position.

2. The rotary lock cylinder as claimed in claim 1, characterized in that the latch element (33) projects into the key channel (11) in a rear region of the rotor (10) and can be actuated by the front end of the key (2) introduced into the key channel (11).

3. The rotary lock cylinder as claimed in claim 2, characterized in that a movable part (20), which can be moved between two positions by the actuator (17, 78), is provided in order to fix the blocking element (25, 64) in the blocking position, the blocking element (25, 64) being fixed in a first position and being released in a second position.

4. The rotary lock cylinder as claimed in claim 2 or 3, characterized in that the movable part (20) is a slide or a pivotable lever (68), on which the blocking element (25, 64) is fixed in the blocked position.

5. The rotary lock cylinder as claimed in one of claims 2 to 4, characterized in that the movable part

(20) can be displaced linearly by the actuator (17, 78).

6. The rotary lock cylinder as claimed in one of claims 1 to 5, characterized in that the latch element (33, 63) can be moved counter to the reactive force of a spring (67).

7. The rotary lock cylinder as claimed in one of claims 1 to 6, characterized in that the blocking element has at least one blocking pin (32, 64), which can be biased by a spring element (37, 65) by virtue of the latch element (33, 63) being actuated.

8. The rotary lock cylinder as claimed in claim 7, characterized in that at least two blocking pins (32, 64) are provided, and in that these can each be biased by a spring element (37, 65).

9. The rotary lock cylinder as claimed in one of claims 4 to 8, characterized in that the pivotable lever (68) has at least one recess (70), in which the blocking element (64) engages by way of one end (66).

10. The rotary lock cylinder as claimed in one of claims 1 to 9, characterized by the provision of a toothed segment (71) which has a blocking part (69) and can be moved by the actuator (77, 78) between a blocking position and a releasing position.

11. The rotary lock cylinder as claimed in claim 10, characterized in that the blocking part (69) interacts with a lever (74) which is arranged on the abovementioned pivotable lever (69).

12. The rotary lock cylinder as claimed in claim 11, characterized in that the lever (68), which interacts with the blocking part (69), is a ratchet lever (74).

Patent claims

1. An electromechanical rotary lock cylinder having a stator and a rotor mounted therein, having a blocking element which is mounted in a bottom part of the stator and, in a locked position, engages in the rotor and, in an open position, releases the rotor, and having an actuator which can be controlled depending on information provided on a key and which, in a blocking position, fixes the blocking element and, in another position, releases the blocking element, wherein a latch element which directly engages in a key channel of the rotor and can be moved by the key, is provided to displace the blocking element from the locked position into the open position.

2. The rotary lock cylinder as claimed in claim 1, wherein the latch element projects into the key channel in a rear region of the rotor and can be actuated by the front end of the key introduced into the key channel.

3. The rotary lock cylinder as claimed in claims 1 or 2 wherein a movable part, which can be moved between two positions by the actuator, is provided in order to fix the blocking element in the blocking position, the blocking element being fixed in a first position and being released in a second position.

4. The rotary lock cylinder as claimed in claim 3, wherein the movable part is a slide or a pivotable lever, on which the blocking element is fixed in the blocked position.

5. The rotary lock cylinder as claimed in claim 3, wherein the movable part can be displaced linearly by the actuator.

6. The rotary lock cylinder as claimed in any one of the previous claims, wherein the latch element can be moved counter to the reactive force of a spring.

7. The rotary lock cylinder as claimed in any one of the previous claims, wherein the blocking element has at least one blocking pin, which can be biased by a spring element responsive to the latch element being actuated.

8. The rotary lock cylinder as claimed in claim 7, wherein at least two blocking pins are provided, and in that these can each be biased by a spring element.

9. The rotary lock cylinder as claimed in claim 3, wherein the pivotable lever has at least one recess, in which one end of the blocking element engages.

10. The rotary lock cylinder as claimed in any one of the previous claims further comprising a toothed segment which has a blocking part and can be moved by the actuator between a blocking position and a releasing position.

11. The rotary lock cylinder as claimed in claim 10 wherein the movable part is a pivotable lever on which the blocking element is fixed in the blocked position, and wherein the blocking part interacts with a lever which is arranged on the pivotable lever.

12. The rotary lock cylinder as claimed in claim 11, wherein the lever, which interacts with the blocking part, is a ratchet lever.

13. The rotary lock cylinder as claimed in claim 11, wherein the lever, which interacts with the blocking part, has a top surface against which the blocking part butts in the blocking position.

14. An electromechanical rotary lock cylinder having a stator and a rotor mounted therein, having a blocking element which is mounted in a bottom part of the stator and, in a locked position, engages in the rotor and, in an open position, releases the rotor, and having an actuator which can be controlled depending on information provided on a key and which, in a blocking position, fixes the blocking element and, in another position, releases the blocking element, wherein a latch element which engages in a key channel of the rotor and can be moved by the key, is provided to displace the blocking element from the locked position into the open position, and

further comprising a toothed segment which has a blocking part and can be moved by the actuator between a blocking position and a releasing position.

15. An electromechanical rotary lock cylinder having a stator and a rotor mounted therein, having a blocking element which is mounted in a bottom part of the stator and, in a looked position, engages in the rotor and, in an open position, releases the rotor, and having an actuator which can be controlled depending on information provided on a key and which, in a blocking position, fixes the blocking element

and, in another position, releases the blocking element, wherein a latch element which engages in a key channel of the rotor and can be moved by the key, is provided to displace the blocking element from the locked position into the open position,

wherein the movable part is a slide or a pivotable lever, on which the blocking element is fixed in the blocked position, wherein the pivotable lever has at least one recess, in which one end of the blocking element engages, and wherein the blocking part interacts with a lever which is arranged on the pivotable lever.