

United
States
of
America



To Promote the Progress



of Science and Useful Arts

The Director

of the United States Patent and Trademark Office has received an application for a patent for a new and useful invention. The title and description of the invention are enclosed. The requirements of law have been complied with, and it has been determined that a patent on the invention shall be granted under the law.

Therefore, this United States

Patent

grants to the person(s) having title to this patent the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States of America or importing the invention into the United States of America, and if the invention is a process, of the right to exclude others from using, offering for sale or selling throughout the United States of America, products made by that process, for the term set forth in 35 U.S.C. 154(a)(2) or (c)(1), subject to the payment of maintenance fees as provided by 35 U.S.C. 41(b). See the Maintenance Fee Notice on the inside of the cover.



Katherine Kelly Vidal



DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

Maintenance Fee Notice

If the application for this patent was filed on or after December 12, 1980, maintenance fees are due three years and six months, seven years and six months, and eleven years and six months after the date of this grant, or within a grace period of six months thereafter upon payment of a surcharge as provided by law. The amount, number and timing of the maintenance fees required may be changed by law or regulation. Unless payment of the applicable maintenance fee is received in the United States Patent and Trademark Office on or before the date the fee is due or within a grace period of six months thereafter, the patent will expire as of the end of such grace period.

Patent Term Notice

If the application for this patent was filed on or after June 8, 1995, the term of this patent begins on the date on which this patent issues and ends twenty years from the filing date of the application or, if the application contains a specific reference to an earlier filed application or applications under 35 U.S.C. 120, 121, 365(c), or 386(c), twenty years from the filing date of the earliest such application (“the twenty-year term”), subject to the payment of maintenance fees as provided by 35 U.S.C. 41(b), and any extension as provided by 35 U.S.C. 154(b) or 156 or any disclaimer under 35 U.S.C. 253.

If this application was filed prior to June 8, 1995, the term of this patent begins on the date on which this patent issues and ends on the later of seventeen years from the date of the grant of this patent or the twenty-year term set forth above for patents resulting from applications filed on or after June 8, 1995, subject to the payment of maintenance fees as provided by 35 U.S.C. 41(b) and any extension as provided by 35 U.S.C. 156 or any disclaimer under 35 U.S.C. 253.



(12) **United States Patent**
Lakomy et al.

(10) **Patent No.:** **US 11,935,345 B2**
(45) **Date of Patent:** **Mar. 19, 2024**

(54) **METHOD OF CONTROLLING AN ELECTRONIC SAFE LOCK**

(56) **References Cited**

(71) Applicants: **Petr Lakomy**, Liberec (CZ); **Petr Chvatal**, Jablonec nad Nisou (CZ); **Ludwig A. J. Kersten**, Kleve (DE)

U.S. PATENT DOCUMENTS
5,883,443 A * 3/1999 Wilson B60R 25/24
340/426.36
9,980,020 B1 * 5/2018 Sharp G07C 9/00174
(Continued)

(72) Inventors: **Petr Lakomy**, Liberec (CZ); **Petr Chvatal**, Jablonec nad Nisou (CZ); **Ludwig A. J. Kersten**, Kleve (DE)

FOREIGN PATENT DOCUMENTS

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 59 days.

WO 2007087417 A2 8/2007

OTHER PUBLICATIONS

(21) Appl. No.: **17/800,789**

Czech Republic Search Report dated Jul. 7, 2020 for related Czech Republic Application No. PV 2020-86 which was filed on Feb. 20, 2020; 3 pages.

(22) PCT Filed: **Feb. 15, 2021**

(Continued)

(86) PCT No.: **PCT/CZ2021/050018**

§ 371 (c)(1),
(2) Date: **Aug. 18, 2022**

Primary Examiner — Carlos Garcia
(74) *Attorney, Agent, or Firm* — Hovey Williams LLP;
Paul J. Walker

(87) PCT Pub. No.: **WO2021/164796**

(57) **ABSTRACT**

PCT Pub. Date: **Aug. 26, 2021**

A method of controlling an electronic safe lock (1) with an electronic unit (2) of the lock (1) and with an electronic remote control unit (3) wherein the blocking mode of the lock (1) unlocking is activable/deactivable from the remote controller (4), when a blocking signal (21)/remote unblocking signal (22) is generated in the remote controller (4) and this signal is transmitted via the electronic remote control unit (3) to the electronic unit (2) of the lock (1), where it blocks/unblocks the unlocking of the lock (1). Wherein in the blocking mode of the lock (1) unlocking, the lock (1) can also be unlocked from the local controller (5) by generating a local unblocking signal (23) and transmitting it to the electronic unit (2) of the lock (1), where it cancels the effect of the blocking signal (21). Subsequently, the internal unlocking signal is activated.

(65) **Prior Publication Data**

US 2023/0081275 A1 Mar. 16, 2023

(30) **Foreign Application Priority Data**

Feb. 20, 2020 (CZ) CZ2020-86

(51) **Int. Cl.**
G07C 9/00 (2020.01)

(52) **U.S. Cl.**
CPC **G07C 9/00912** (2013.01); **G07C 9/00309** (2013.01)

(58) **Field of Classification Search**

None
See application file for complete search history.

1 Claim, 5 Drawing Sheets

