



# Archived Content

In an effort to keep DHS.gov current, this document has been archived and contains outdated information that may not reflect current policy or programs.

# Smart Gun Technology Patents

## Gun with user notification

Publication Number: US20050066567A1

**Abstract:** A gun is disclosed having conventional components and a holster. The gun has means for detecting removal of the gun from the holster, means for processing the output of the detection means, and means for authenticating the user of the gun. The gun has means for notifying remote authorities that the gun has been removed from the holster, means for receiving remote commands to lock the trigger and/or initiate a global positioning system. The gun has means for selectively locking the trigger from a remote location and means for selectively activating a global positioning system from the remote location.

**Method for Identification:** Electronic Transponder. Body Worn Device,GPS, Holster

**Assignee(s):** NEWKIRK TONY N. | NEWKIRK REGINALD HILL

**Application (Year/Month):** 2004-06

**Publication (Year/Month):** 2005-03

**Legal Status:** Granted

**Learn More:** <https://patents.google.com/patent/US20050066567A1/en>

## Firearm safety system

Publication Number: US6499243

**Abstract:** A firearm safety system restricts the use of the firearm by reference to biometric data received by a sensor coupled to the firearm trigger. The biometric data is compared to at least one record of biometric data associated with a permitted user to determine whether firearm actuation is permitted. Firearm actuation is controlled by an anchor that is pivotally coupled to the firearm trigger. Firearm actuation is prevented when the anchor is extended between the trigger and the trigger aperture. Firearm actuation is permitted when the anchor is retracted in response to a positive identification by the sensor.

**Method for Identification:** Electric Transponder, Trigger Block Finger Print, Voice Control, or Palm Print

**Assignee(s):** SPID 2002 CORP.

**Application (Year/Month):** 2002-03

**Publication (Year/Month):** 2002-12

**Legal Status:** Expired- Fee Related

**Learn More:** <https://patents.google.com/patent/US6499243B1/en>

## Safety device for firearms

**Publication Number:** US5062232

**Abstract:** A safety device for firearms having trigger interrupting means operably connected to the trigger mechanism of the firearm. The code generating means worn by the user or operated by the user generates a signal which is detected by detection means on the weapon to disengage the trigger interrupting means to permit the weapon to selectively be fired by an authorized user.

**Method for Identification:** Electronic Transponder, Trigger Block

**Assignee(s):** EPPLER LARRY D

**Application (Year/Month):** 1990-02

**Publication (Year/Month):** 1991-11

**Legal Status:** Expired- Fee Related

**Learn More:** <https://patents.google.com/patent/US5062232A/en>

## Weapon and authorised weapon user recognition appts.

**Publication Number:** DE4446020A1

**Abstract:** The appts. recognises the relationship and the operational release between a weapon (2) and an authorised user (1). A transmitter/receiver system (5, 6) is arranged between the weapon (2) and the user (1). These releases the mechanical and/or electrical/electronic function of the weapon (2) when a predetermined maximum distance (4) between the weapon (2) and the user (1) is not exceeded and when the weapon is arranged at a suitable predetermined position relative to the user (1). Pref. after activation of the transmission/reception system, the transmitter (5) measures the distance and positioning between the weapon and the user and analyses the measurements. The transmitter (5) or receiver (6) may be worn on the user's body with the other of the receiver or transmitter arranged in or on the weapon. The transmitter/receiver system may be switched on by use of a personal PIN code through a chip or plug card or plug.

**Method for Identification:** Electronic Transponder, Body Worn Device, PIN

**Assignee(s):** MAUSER-WERKE OBERNDORF WAFFENSYSTEME GMBH, 78727 O

**Application (Year/Month):** 1994-12

**Publication (Year/Month):** 1996-06

**Legal Status:** Ceased

**Learn More:** <https://patents.google.com/patent/DE4446020A1/en>

Firearm safety lock

**Publication Number:** US6510639

**Abstract:** Shown is a locking, grip-enclosed safety device for a firearm. The grip-enclosed mechanism has an externally-operable locking selector which is operable by a user to be locked into distinct armed and unarmed positions. The locking selector actuates a mechanical trigger/firing mechanism interruption member between distinct armed and unarmed positions.

**Method for Identification:** Trigger Block

**Assignee(s):** MCMOORE WILLIAM A.

**Application (Year/Month):** 2001-01

**Publication (Year/Month):** 2003-01

**Legal Status:** Expired- Fee Related

**Learn More:** <https://patents.google.com/patent/US6510639B2/en>

## Smartgun

**Publication Number:** AU2012100789A4

**Abstract:** The Smart Gun invention has been created to prevent accidental discharge or misuse of firearms. The chip technology and sensor system contained within this invention enables only 5 operators who have an exact corresponding chip on their body recognised by the one contained in the firearm, to activate and operate the firearm. The purpose of the Smartgun technology is that it renders the gun useless to anyone but the registered firearm operator.

**Method for Identification:** Electronic Transponder, Sensor, Computer Chip

**Assignee(s):** KOKER JAMES | JAMES, KOKER

**Application (Year/Month):** 2012-05

**Publication (Year/Month):** 2012-07

**Legal Status:** Expired- Fee Related

**Learn More:**

<http://share.analytics.patsnap.com/view/4677E14486A8E2838DC80737EB7320270AC9EFA3E5B83646411A9DB32E103437>

## Systems and Methods for Firearm Cartridge Management

**Publication Number:** US20150233660A1

**Abstract:** An ignition inhibitor system within a firearm cartridge and a method of making same, comprising an internal framework with a top end and a bottom end as well as chambering and sub-sections for, a fluid chamber, a switch, a power source an actuator; said bottom end having port holes in proximity to a fluid chamber adjacent to the primer charge; a switch located within said internal framework that is activated by one of electromagnetic energy transmission devices, radio frequency identification transmission devices and other wireless signaling technologies and systems; as well as an actuator that causes the deployment of fluid in the fluid chamber sub-section, a power source, which are connected with electrically conductive materials and all of which are located within said internal framework; and fluid that is released upon the activation of said ignition inhibitor system described herein.

**Method for Identification:** Trigger Block

**Assignee(s):** BARTON, RICK H.

**Application (Year/Month):** 2014-02

**Publication (Year/Month):** 2015-08

**Legal Status:** Pending

**Learn More:** <https://patents.google.com/patent/US20150233660A1/en>

## FIREARM SAFETY SYSTEM

**Publication Number:** US20150153124A1

**Abstract:** A firearm safety system and method is described herein. The system may include a tracking system, a smart firearm and/or a smart magazine, and a smart tracking unit. The tracking system is in communication with satellites that monitor specific locations, a smart firearm and a portable electronic device. The tracking system includes an internal geographical database of specific monitored locations. The smart firearm includes a microprocessor and a receiver. The motor operates in response to a signal received, which may indicate that the firearm is approaching a no gun safety zone, whereby the signal causes the microprocessor to operate the automatic safety lock to prevent the apparatus from operating. The receiver monitors signals and receives location data from the satellites. The method of operating a smart firearm includes receiving a signal at the at least one receiver and responding to the signal by locking the automatic safety lock.

**Method for Identification:** Electronic Transponder, Location Detection

**Assignee(s):** CARLSON, TREVOR EDWIN

**Application (Year/Month):** 2015-01

**Publication (Year/Month):** 2015-06

**Legal Status:** Pending

**Learn More:** <https://patents.google.com/patent/US20150153124A1/en>

## METHODS AND SYSTEMS FOR ENHANCING FIREARM SAFETY THROUGH WIRELESS NETWORK MONITORING

**Publication Number:** WO2014163653A1

**Abstract:** A firearm includes a firing mechanism and a sensor device. The sensor device includes a subscriber identity module configured to communicate with a server over a signaling channel of a wireless communications network. The Sensor device is configured to enable/disable the firing mechanism in accordance with instructions received by the SIM from the server. Movements and/or attempted operations of the firearm may be monitored using an application running on a mobile device, which application receives information concerning the firearm over the signaling channel of the wireless communications network.

**Method for Identification:** Electronic Transponder, Smart Phone, Wireless, Remotely Activated

**Assignee(s):** GUNNEGATE, LLC

**Application (Year/Month):** 2013-06

**Publication (Year/Month):** 2014-10

**Legal Status:** Pending

**Learn More:** <https://patents.google.com/patent/WO2014163653A1/en>

## System for activating a weapon with an identification mechanism

**Publication Number:** US20030070343A1

**Abstract:** A system for activating a weapon to a state of readiness to fire includes an identification mechanism which is carried by the user of the weapon. The identification mechanism includes a sensor configured to input an identification code, a store configured to store the identification code and a transmitter. A receiver is provided in the weapon. The transmitter sends an activation signal to the receiver upon a positive identification code comparison. The activation signal activates the weapon to a state of readiness to fire. To maintain the weapon in this activation state, the transmitter continuously emits a signal to the receiver. The receiver controls a processor which is configured to maintain the weapon in the activation state based exclusively on the strength of the signals continuously being received by the receiver. To maintain the weapon in this state, the strength of the received signals must be equal to or greater than the strength of the signals received by the receiver when the identification mechanism is at a specified distance from the weapon.

**Method for Identification:** Electronic Transponder, PIN

**Assignee(s):** GLOCK GASTON

**Application (Year/Month):** 2002-10

**Publication (Year/Month):** 2003-04

**Legal Status:** Abandoned

**Learn More:** <https://patents.google.com/patent/US20030070343A1/en>

## Trigger safety lock

**Publication Number:** US5784819

**Abstract:** A trigger safety lock system is provided which provides ease in operation by authorized users by utilizing a sequence of buttons for combinational locking of the trigger or firing mechanism without the need for attachment of external accessories. The buttons act within a key way structure to permit or block movement of the trigger or firing mechanism. Such trigger devices can be used in various apparatus, such as firearms, tools and machines.

**Method for Identification:** Trigger Block, Combination Lock

**Assignee(s):** ROPER; RICHARD BLAIR

**Application (Year/Month):** 1997-03

**Publication (Year/Month):** 1998-07

**Legal Status:** Expired- Fee Related

**Learn More:** <https://patents.google.com/patent/US5784819A/en>

## Wireless controlled devices for a weapon and wireless control thereof

**Publication Number:** US8093992

**Abstract:** A system and method related to weapon mounted auxiliary devices that can be operated by wireless remote control, and a remote controller by which an operator can operate the auxiliary devices remotely by wireless control. This includes all means of remote control of the auxiliary devices to include but not be limited to radio frequency (RF), infrared (IR) energy, all other wavelengths of the electromagnetic spectrum, and acoustic, pressure, or sound waves. Control of the auxiliary devices can range from simple activation to wireless control of all auxiliary device controls and adjustments. This can also include a single remote control device that can operate one or more weapon mounted auxiliary devices.

**Method for Identification:** Electronic Transponder, RF, Remotely Activated

**Assignee(s):** L-3 COMMUNICATIONS INSIGHT TECHNOLOGY INCORPORATED

**Application (Year/Month):** 2008-10

**Publication (Year/Month):** 2012-01

**Legal Status:** Active (Expires 2025)

## Safety device for a handheld firearm

Publication Number: BR9909254A

**Abstract:** The invention relates to a detent for a handgun, comprising at least one sensor for determining the identity of the user on the basis of at least one finger. According to the invention, a sensor determines the capacitance between a sensor surface and a section of the finger, an image of the finger section is generated from the voltage differences and said image is compared with memorized finger sections.

**Method for Identification:** Electronic Transponder, Finger Print

**Assignee(s):** HARALD BREINLINGER | PETER LAUSTER

**Application (Year/Month):** 1999-02

**Publication (Year/Month):** 2000-11

**Legal Status:** Expired- Fee Related

**Learn More:**

[http://share.analytics.patnap.com/view/6F935E7AF75C1C1EC2C9901904BB55BFC3BD76E56BAF76EA#/?\\_k=s8qjil](http://share.analytics.patnap.com/view/6F935E7AF75C1C1EC2C9901904BB55BFC3BD76E56BAF76EA#/?_k=s8qjil)

## Handgun, fitted with a fingerprint thermo scanner and software, ensures that the weapon cannot be fired by an unauthorized user

Publication Number: DE202005020900U1

**Abstract:** The hand gun has a sensor system with one or more direct and active interfaces to identify the user as the authorized user of the weapon. The system has a fingerprint thermo scanner, together with suitable software and a supply and signal bus.

**Method for Identification:** Electronic Transponder, Finger Print, Thermo Scanner

**Assignee(s):** INDUSTRIE-ELEKTRONIK-SERVICE (IES) | WTS-WAFFENTECHNIK IN SUHL GMBH

**Application (Year/Month):** 2005-06

**Publication (Year/Month):** 2006-12

**Legal Status:** Expired- Fee Related

**Learn More:** <https://patents.google.com/patent/DE202005020900U1/en>

## Child safety device, alarm and lock for firearms

Publication Number: US6601332

**Abstract:** Trigger lock, safety and alarm devices for a firearm includes a trigger clamp that immobilizes the devices on the firearm in a position in which the device cannot be moved with respect to the firearm to

actuate the trigger and discharge the firearm. The devices include a locking mechanism that is used to mount the device to the firearm. An alarm on the device is sounded by actuation of a motion sensor when the device is moved, for example, when the firearm is moved. The alarm can be enabled and disabled using buttons mounted on the devices, and an indicator light flashes on the devices when the alarm is enabled. The keys are also used to operate the locking mechanism to lock or unlock the devices.

**Method for Identification:** Electronic Transponder, Alarm, Motion Sensor

**Assignee(s):** CHILD GUARD LLC

**Application (Year/Month):** 2000-02

**Publication (Year/Month):** 2003-08

**Legal Status:** Expired- Fee Related

**Learn More:** <https://patents.google.com/patent/US6601332B1/en>

## WIRELESS CONTROLLED DEVICES FOR A WEAPON AND WIRELESS CONTROL THEREOF

**Publication Number:** WO2005022067A3

**Abstract:** A system (100) related to weapon (106) mounted auxiliary devices (102) that can be operated by wireless remote control, and a remote controller (104) by which an operator can operate the auxiliary devices (102) remotely by wireless control. This includes all means of remote control of the auxiliary devices to include but not be limited to radio frequency (RF), infrared (IR) energy, all other wavelengths of the electromagnetic spectrum, and acoustic, pressure, or sound waves. Control of the auxiliary devices 102 can range from simple activation to wireless control of all auxiliary device controls and adjustments. This can also include a single remote control device (104) that can operate one or more weapons (106) mounted auxiliary devices (102).

**Method for Identification:** Electronic Transponder, Remotely Activated

**Assignee(s):** INSIGHT TECHNOLOGY INCORPORATED | JANCIC, DALE, ALLEN | DEYESO, PAUL, JOSEPH

**Application (Year/Month):** 2004-04

**Publication (Year/Month):** 2006-05

**Legal Status:** Granted

**Learn More:** <https://patents.google.com/patent/WO2005022067A3/en>

## FIREARM SECURING DEVICES

**Publication Number:** US20140115937A1

**Abstract:** Various embodiments of a firearm securing device are disclosed.

**Method for Identification:** No Data

**Assignee(s):** HARMAN, WES | VALLO, NICHOLAS | TRUNEK, CHRISTOPHER | HARRISON, PAUL

**Application (Year/Month):** 2013-10

**Publication (Year/Month):** 2014-05

**Legal Status:** Pending

**Learn More:** <https://patents.google.com/patent/US20140115937A1/en>

## Electronically activated holster

**Publication Number:** WO1998011399A3

**Abstract:** An electronically activated holster that releasably secures a weapon to the holster. A locking mechanism releases the weapon upon receiving an electrical signal generated when certain conditions are present. These predetermined conditions are selected by a user and these inputs can be sensed with photosensitive devices attached to the holster that detect bar codes on a user's hand or glove so that a predetermined pattern can be read and conveyed to a control circuit, such as a central processing unit. In turn, the control circuit records the event and causes the locking mechanism to release the weapon if the necessary conditions are present. Alternatively, an ultrasonic transmitter can be worn by a user in a wristband and a cooperative receiver on the holster designed to be activated when a predetermined proximity is achieved. An alarm output is provided to visually or audibly broadcast a violated condition. Optionally, a transmitter is incorporated to the holster to broadcast the condition of the alarm and a remotely placed receiver is used to monitor the broadcast. Another input is supplied by a general positioning system that ascertains the location of the holster at selected times, stores it, and/or broadcasts it. An input/output port permits exchange of data and instructions to and from the control circuit.

**Method for Identification:** Electronic Transponder, Holster, Alarm, Barcode

**Assignee(s):** MICRO IDENTIFICATION SYSTEMS, INC.

**Application (Year/Month):** 1997-09

**Publication (Year/Month):** 1998-09

**Legal Status:** Granted

**Learn More:** <https://patents.google.com/patent/WO1998011399A3/en>

## FIREARM ACCESSORY

**Publication Number:** WO2014145079A1

**Abstract:** An accessory device useful for any of training, compliance, safety, and accountability of individuals in the use of firearms. An embodiment comprises a circuit board and housing with a means for attaching the accessory to a firearm. The circuit board may comprise an inertial measurement unit (IMU), a GPS receiver, memory to store data, a means for transmitting data, and a microprocessor unit for

controlling operations of the printed circuit board. The IMU may comprise a gyroscope, accelerometer, and magnetometer. The accessory can provide position and movement data of such accuracy as to disclose, after transmission and analysis, a firearm user's stability prior to and during discharge, how well the user managed recoil from the discharge, and how quickly the user returned to a starting position following discharge. A reviewer may also be able to discern movements such as those caused by a user's breathing or involuntary muscle contractions.

**Method for Identification:** Electronic Transponder, GPS

**Assignee(s):** SCHMEHL, STEWART, JACOB | HAMANN, PETER, JAMES | SCHMEHL, JACOB, STEWART

**Application (Year/Month):** 2014-03

**Publication (Year/Month):** 2014-09

**Legal Status:** Pending

**Learn More:** <https://patents.google.com/patent/WO2014145079A1/en>

## Firearm with a device for verifying the authorisation of a person

**Publication Number:** EP1074809A1

**Abstract:** User authorization system for firearm has ultrasonic receiver in firearm receiving sound waves transmitted from unit held by authorized user and connected to circuit capable of blocking firing. The gun is fired by a trigger (2) in the usual way. A lever (3), connected to the trigger, may be blocked by a unit (10) with an electrical command device (10A), connected to a control circuit (9). The transmitter receiver device (6) in the gun is in two-way communication with a second transmitter-receiver (13) in an identification unit carried by the user. The unit may act as a transponder and a circuit (8) in the gun calculates the distance of the identification unit from the delay in returning the signal. Excessive distance may lead to the gun being locked out of action.

**Method for Identification:** Electronic Transponder

**Assignee(s):** FN HERSTAL, SOCIÉTÉ ANONYME

**Application (Year/Month):** 2000-07

**Publication (Year/Month):** 2001-02

**Legal Status:** Expired- Fee Related

**Learn More:** <https://patents.google.com/patent/EP1074809A1/en>

## Universal firearm disabling and alarm system

**Publication Number:** US5548915

**Abstract:** A universal firearm disabling and alarm signalling system is attained by providing a construction which is easily mounted to any firearm to prevent its unwanted use while also incorporating an automatic alarm signal which is immediately activated whenever the protected firearm is accessed by unauthorized persons. By employing the present invention, any movement of the firearm,

or attempt to remove the disabling and alarm signalling system of the present invention from the firearm, causes an alarm signal to be continuously generated, preventing any unauthorized or unwanted use of the firearm. In the preferred embodiment, the universal, combined firearm disabling and alarm system of the present invention incorporates lock means cooperatively associated with the alarm signal generator which is quickly and easily mounted to any desired firearm for preventing unwanted use of the firearm and remains in secure locked interengagement therewith until disengaged by the user.

**Method for Identification:** Alarm Signal

**Assignee(s):** CAPODICCI; VINCENT | SZARMACH; MICHAEL

**Application (Year/Month):** 1995-03

**Publication (Year/Month):** 1996-08

**Legal Status:** Expired- Fee Related

**Learn More:** <https://patents.google.com/patent/US5548915A/en>

## Firearm safety mechanism

**Publication Number:** US5987796

**Abstract:** A firearm safety mechanism having a self-contained locking mechanism incorporated into the magazine of a semi-automatic pistol which inhibits use of the firearm when a locking mechanism disarms the firing mechanism as well as locking the magazine in position so as to prevent unauthorized replacement. The firearm can be locked against unauthorized use and unlocked by an authorized user without resort to external accessories.

**Method for Identification:** Trigger Block Combination Lock

**Assignee(s):** SAF-T-LOK CORPORATION

**Application (Year/Month):** 1998-07

**Publication (Year/Month):** 1999-11

**Legal Status:** Expired- Fee Related

**Learn More:** <https://patents.google.com/patent/US5987796A/en>

## METHODS AND SYSTEM FOR CONTROLLING THE USE OF FIREARMS

**Publication Number:** US20150198399A1

**Abstract:** According to certain aspects, a system for controlling use of firearms can include a circuitry coupled to a firearm and in communication with a Global Positioning System (GPS) unit. The circuitry may be configured to: determine, using the GPS unit, coordinates of a current location of the firearm; transmit the coordinates of the current location of the firearm to a remote server, wherein the remote server comprises a database including a plurality of coordinates associated with a plurality of locations

at which the firearm should be enabled or disabled; receive from the remote server information relating to whether the firearm should be disabled at the coordinates of the current location of the firearm; and in response to determining that the firearm should be disabled based on the information from the remote server, initiate disabling of the firearm.

**Method for Identification:** Electronic Transponder, GPS, GPS, Location Detection

**Assignee(s):** GOREN, DAVID | PETERSON, JAMES

**Application (Year/Month):** 2015-03

**Publication (Year/Month):** 2015-07

**Legal Status:** Expired- Fee Related

**Learn More:**

<http://share.analytics.patnap.com/view/5C93858FE8663FBA6F642C3E97F62A5F4628A3FC2D186CCAC7C704633CE7CD84>

## ELECTRONIC SAFETY AND CONTROL DEVICE FOR FIREARMS

**Publication Number:** US20140250753A1

**Abstract:** An electronic safety and control device for firearms, applicable to guns or rifles has an electronic board with a microchip of wireless communication with a computerized remote control center, and with a GPS location system. An electronic locking/unlocking system is associated with the safety lock and the hammer of the weapon linked to the electronic board and rechargeable battery. The control center automatically causes the activation or not of an of the elements on the device. Also, the device optionally includes, linked to the electronic board, a deactivation system, for example consisting of a micro-primer built next to the hammer, main micro-camera in the rear of the weapon, a secondary micro-camera on the front, and/or a microphone and speaker,

**Method for Identification:** Electronic Transponder, GPS, Location Detection, Camera, Microphone

**Assignee(s):** KARMANOV KOTLIAROV, GEORGY | D AZ N NEZ, JOAQUIN

**Application (Year/Month):** 2014-01

**Publication (Year/Month):** 2014-09

**Legal Status:** Pending

**Learn More:** <https://patents.google.com/patent/US20140250753A1/en>

## Electronically controlled firearm

**Publication Number:** US6430861

**Abstract:** A firearm using a laser in place of a firing pin mechanism. Special cartridges have a lasing chip, which lases to ignite the propellant when a beam from the laser impinges on the lasing chip through a port in the breechblock. An electronic control system prevents the unauthorized use of the

firearm by preventing connection of the laser power supply to the laser unless the user of the firearm is in close proximity and is authorized by an ID card.

**Method for Identification:** Electronic Transponder, Personal Identification Card

**Assignee(s):** MCCARTNEY SIDNEY | AYERS TYLER

**Application (Year/Month):** 2001-05

**Publication (Year/Month):** 2002-08

**Legal Status:** Expired- Fee Related

**Learn More:** <https://patents.google.com/patent/US6430861B1/en>

## Safety device for a handheld firearm

**Publication Number:** US20030136043A1

**Abstract:** The invention relates to a detent for a handgun, comprising at least one sensor for determining the identity of the user on the basis of at least one finger. According to the invention, a sensor determines the capacitance between a sensor surface and a section of the finger, an image of the finger section is generated from the voltage differences and said image is compared with memorized finger sections.

**Method for Identification:** Electronic Transponder, Finger Print

**Assignee(s):** BREINLINGER HARALD | LAUSTER PETER

**Application (Year/Month):** 2003-01

**Publication (Year/Month):** 2003-07

**Legal Status:** Pending

**Learn More:** <https://patents.google.com/patent/US20030136043A1/en>

## Safety system

**Publication Number:** US3939679

**Abstract:** Normally disabled electrical and mechanical devices are caused to be enabled to operate by remote control signals having predetermined distinctive characteristics, such signals originating from enabling control equipment transported by an authorized person or persons. Receiving equipment providing output enabling signals only in response to received signals having the predetermined distinctive characteristics is preferably made integral with the mechanical or electrical devices involved and is coupled through appropriate electronic or electromechanical devices to the disabling means in the mechanical or electrical devices to be enabled.

**Method for Identification:** Electronic Transponder, Finger Print, Voice Control, or Palm Print

**Assignee(s):** PRECISION THIN FILM CORPORATION

Application (Year/Month): 1974-03

Publication (Year/Month): 1976-02

Legal Status: Expired

Learn More: <https://patents.google.com/patent/US3939679A/en>

## Safety device for firearms

Publication Number: US6286240

**Abstract:** A safety device for firearms includes a scanner for scanning in a user's finger or thumb print, and a microprocessor for storing the data associated with the fingerprint. The microprocessor can also be programmed to store the name, address, phone number, and social security number of the user. The device also includes at least two indicator lamps to inform the user whether the system is armed or unarmed, and to provide an indication when the battery is low. A solenoid activated spring loaded mechanism defeats operation of the firing pin thus rendering the firearm inoperable. The mechanism is designed to make the firearm appear to malfunction.

**Method for Identification:** Fingerprint

**Assignee(s):** COLLINS KENNETH RAY

Application (Year/Month): 1999-04

Publication (Year/Month): 2001-09

Legal Status: Expired- Fee Related

Learn More: <https://patents.google.com/patent/US6286240B1/en>

## Firearm holster lock with fingerprint identification means

Publication Number: US6320975

**Abstract:** Disclosed is a retaining device for lockingly receiving a firearm wherein the firearm has a barrel, barrel sight, grip, hammer and trigger guard. The retaining device comprises a holster having a closed forward portion and an open rearward portion. A guide channel is positioned within the holster for accepting the barrel and trigger guard of the firearm. A fingerprint identification means has a fingerprint input device positioned upon the external surface of the holster at an intermediate extent. Further provided is a comparison means for comparing an inputted fingerprint with a stored fingerprint image, and a signal generating means for generating a first signal when an inputted fingerprint matches a stored fingerprint and a second signal when an inputted fingerprint fails to match a stored fingerprint. The signal generating means is in electrical communication with and controls a firearm retaining means. The firearm retaining means has a first orientation securing the firearm within the holster and a second orientation allowing the firearm to be removed. The retaining means is in electrical communication with and responsive to signals from the signal generating means.

Method for Identification: Fingerprint

Assignee(s): VIEWEG THOMAS

Application (Year/Month): 1999-04

Publication (Year/Month): 2001-11

Legal Status: Active

Learn More: <https://patents.google.com/patent/US6320975B1/en>

## Firearm with force sensitive trigger and activation sequence

Publication Number: US7441362

**Abstract:** Firearms include a specially designed trigger capable of verifying a user's identity so that only an authorized user can discharge the firearm. In some embodiments, a user is identified by matching a signal representing force applied to the trigger as a function of time with a preprogrammed activation sequence.

Method for Identification: Fingerprint or Force Signal

Assignee(s): METADIGM LLC

Application (Year/Month): 2005-03

Publication (Year/Month): 2008-10

Legal Status: Active

Learn More: <https://patents.google.com/patent/US7441362B1/en>

## SAFETY SYSTEM AND METHOD FOR REMOTELY DISABLING A WEAPON

Publication Number:

**Abstract:** A weapon including a first portion of a disarming protection circuit integrated into a removable magazine clip. The first portion of the disarming protection circuit is integrated into the magazine clip and includes, a high voltage source, a receiver for receiving a signal from a transmitter and an output. A second portion of the disarming protection circuit includes a conductor assembly including an electrode that extends adjacent to an inside wall of a magazine compartment. The first end of the electrode is electrically connected to a conductor connection adjacent to the output of the first portion of the circuit. A second end of the electrode is disposed through the handle and is exposed from outside the handle. An actuator generates the signal that connects the high voltage source in the circuit to

the electrode in response to the output from the receiver. In response to the actuator being activated, the high voltage current source produced is electrically communicated through the electrode into the handle of the weapon with a sufficient shock to cause a person to release the weapon.

**Method for Identification:** Electric Transponder

**Assignee(s):** CHANCE, DONALD EUGENE | PITTS, DENNIS HAROLD | OSBORNE, WAYNE KENNETH

**Application (Year/Month):** 2014-04

**Publication (Year/Month):** 2014-08

**Legal Status:** Pending

**Learn More:** <https://patents.google.com/patent/US20140230301A1/en>

## Safety trigger

**Publication Number:** US5603179

**Abstract:** A safety mechanism for a firearm consisting of a specialized scanning mechanism built into the firearm's trigger. The scanner is programmed to read the unique fingerprints of a given individual. The device is also capable of holding the programmed print information for more than one person, so that multiple people would be able to use the firearm. However, usage is limited to only those persons whose hand prints have been prestored in the scanner. The scanner mechanism is connected to the firearm's safety lock. The safety is prevented from being released without proper authorization from the scanner. When a person grips the weapon and places his finger on the trigger, the pressure of the finger on the trigger activates the scanner, and the scanner reads the fingerprint to determine if the scanned fingerprint matches one of the pre-stored fingerprint images. If the individual is an authorized user, the scanner transmits a signal to the safety, releasing this device and activating the firearm for use.

**Method for Identification:** Fingerprint

**Assignee(s):** ADAMS; HEIKO B.

**Application (Year/Month):** 1995-10

**Publication (Year/Month):** 1997-02

**Legal Status:** Expired

**Learn More:** <https://patents.google.com/patent/US5603179A/en>

## FIREARM SECURITY BLOCK AND FIREARM FITTED THEREWITH

**Publication Number:** WO2006043277A2

**Abstract:** The invention relates to locking devices preventing the unauthorized use of firearms. The invention provides a block, shaped partly as a normal magazine or a magazine or other shaped member which can be inserted into a firearm to block the magazine housing thereof or the barrel and which can be

removed therefrom only by transmitting relevant biometric data to said block, said data corresponding with biometric data digitally stored in the block memory.

**Method for Identification:** Voice, Fingerprint, or Palm print

**Assignee(s):** N-TRANCE SECURITY LTD. | CUPRIN, EUGENE | DONSKOY, IGOR

**Application (Year/Month):** 2005-10

**Publication (Year/Month):** 2006-04

**Legal Status:** Pending

**Learn More:** <https://patents.google.com/patent/WO2006043277A2/en>

## FIREARM SECURITY BLOCK AND FIREARM FITTED THEREWITH

**Publication Number:** WO2006043277A2

**Abstract:** The invention relates to locking devices preventing the unauthorized use of firearms. The invention provides a block, shaped partly as a normal magazine or a magazine or other shaped member which can be inserted into a firearm to block the magazine housing thereof or the barrel and which can be removed therefrom only by transmitting relevant biometric data to said block, said data corresponding with biometric data digitally stored in the block memory.

**Method for Identification:** Voice, Fingerprint, or Palm print

**Assignee(s):** N-TRANCE SECURITY LTD. | CUPRIN, EUGENE | DONSKOY, IGOR

**Application (Year/Month):** 2005-10

**Publication (Year/Month):** 2006-04

**Legal Status:** Pending

**Learn More:** <https://patents.google.com/patent/WO2006043277A2/en>

## Global Positioning System Enabled and Disabled Firearm

**Publication Number:** US20160025438A1

**Abstract:** A control system to enable or disable a firearm based on information from a remote location. The information may be global positioning system (GPS) information compared against a database of pre-stored forbidden location information. Thus, when the firearm is at a forbidden location matching the GPS information, it may be automatically disarmed. Similarly, the information may constitute command instructions for enabling or disabling of the firearm. Further, such command instructions may be based on information related to the firearm that is obtained from a transmitter of the firearm itself.

**Method for Identification:** GPS

**Assignee(s):** ALDERMAN, ROBERT JOE

Application (Year/Month): 2015-07

Publication (Year/Month): 2016-01

Legal Status: Pending

Learn More: <https://patents.google.com/patent/US20160025438A1/en>

## Firearm with remotely activated safety system

Publication Number: US6223461

**Abstract:** A safety system and method for remotely activating and/or deactivating firearm(s). In certain embodiments, at least one processor or chip may be provided in the firearm. In order to remotely activate a firearm and allow it to be discharged, a controller (located remotely from the firearm) causes an activation signal to be sent to a satellite. The satellite redirects the activation signal toward a particular geographical area. When the firearm to be activated is in that geographical area, it receives the activation signal from the satellite. Upon determining that a match is found between a code in the received activation signal and a predetermined activation code stored in a memory of the firearm, the processor in the firearm causes a trigger lock in the firearm to open thereby enabling the firearm to be discharged whenever a user should decide to load the weapon and pull the trigger. Firearms may be remotely deactivated in a similar manner by way of satellite communication, or any other type of wireless communication such as from a remotely located police transmitter.

**Method for Identification:** Remotely activated

**Assignee(s):** TECHNOLOGY PATENTS, LLC

Application (Year/Month): 1998-11

Publication (Year/Month): 2001-05

Legal Status: Active

Learn More: <https://patents.google.com/patent/US6223461B1/en>

## Firearms security

Publication Number: US6477801

**Abstract:** This invention provides security measures for electronically operated munitions and firearms such as the pistol (10). The electronic controls (18) may be armed or disarmed electronically and provided with encoding means which arms the electronic controls to enable firing of the secured weapon upon the monitoring authorised code. This code may be electronically personalised to the individual. The code may be provided by a swipe card or the like carried by the authorised personnel. Alternatively the code may be biometric data which retains a lifelong distinctive identity of the authorised personnel.

**Method for Identification:** Electric Transponder, Personal Identification Card, or Finger Print, Voice Control, or Palm Print

**Assignee(s):** METAL STORM LIMITED

**Application (Year/Month):** 1999-12

**Publication (Year/Month):** 2002-11

**Legal Status:** Expired- Fee Related

**Learn More:**

<http://share.analytics.patsnap.com/view/B70D23B60F8C25E2C91DF5E6AA9F40E6AD860643CD2CC268>

## Firearm safety system

**Publication Number:** US9250030

**Abstract:** A firearm safety system as well as a method associated with the firearm safety system capable of preventing a firearm from firing is described. By incorporating a control module into firearms, the presence by the firearm may be detected by a detecting device receiving signals sent by the control module. The detecting device may in turn transmit signals to an established signaling network, such as a mobile telephone network, which may then telecommunicate with the control module to disable the firearm and prevent it from being fired. Such a system and method may be most effective in gun-free zones, especially places such as schools and courthouses. Thus, both the system and the method may be used to reduce firearm violence.

**Method for Identification:** Electric Transponder

**Assignee(s):** HENRY, DAVID

**Application (Year/Month):** 2014-06

**Publication (Year/Month):** 2016-02

**Legal Status:** Active

**Learn More:**

<http://share.analytics.patsnap.com/view/98C866AE82C330733DB7FDA1A4E704227A7C0DFACB8FE178>

## ELECTRONIC TRIGGER LOCK

**Publication Number:** WO1997025582A1

**Abstract:** An electronic trigger lock (100) which contains a back plate (130) which blocks access to the trigger from one side of a firearm. This black plate has a member extending from it which contains a first series of ratchet teeth (219). Next, an electronic portion of the electronic trigger guard is provided to block access to the other side of the trigger. This electronic portion is contained within an outer housing (200). A user interface (208) is located on the exterior of the outer housing for entering information into the electronic trigger lock. The outer housing has an opening for receiving the member extending from the back plate. This opening contains a second series of ratchet teeth (217) which are adapted to engage the first series of ratchet teeth. A solenoid (224) inside the outer housing enables the release of the

ratchet teeth from each other. A processor (302) is provided for energizing the solenoid upon receiving a predefined code from the user interface.

**Method for Identification:** Combination Lock

**Assignee(s):** SPEED RELEASE LOCK COMPANY

**Application (Year/Month):** 1997-01

**Publication (Year/Month):** 1997-07

**Legal Status:** Active

**Learn More:** <https://patents.google.com/patent/WO1997025582A1/en>

## Voice activated weapon lock apparatus

**Publication Number:** US5570528

**Abstract:** A voice activated locking apparatus for handguns and rifles. The apparatus is designed to fit into handgrips that replace the factory provided handgrips. Flexible membrane circuitry is contained within the handgrips as well as the power source for the apparatus so that the unit does not have to be made part of the weapon and can easily be added at a later time. The only other modification of the weapon that is necessary is to make a slight change to the trigger assembly or trigger bar. The operator speaks into a small microphone exposed to the outside surface of the handle grip so that authentication of the operator's speech pattern is performed. A verified speech pattern by a voice recognition chip unlocks a solenoid mechanism that allows the weapon to be fired. The identifiable speech pattern stored within the voice recognition chip can be reprogrammed for another user via the microphone and an interface keypad housed on the weapon grip.

**Method for Identification:** Voice Control

**Assignee(s):** TEETZEL; JAMES W.

**Application (Year/Month):** 1995-06

**Publication (Year/Month):** 1996-11

**Legal Status:** Expired- Fee Related

**Learn More:** <https://patents.google.com/patent/US5570528A/en>

## Touch sensor firearm safety system

**Publication Number:** US20060101694A1

**Abstract:** A firearm safety system prevents an unintentional discharge of a firearm. A touch sensor is located on a front surface of the firearm trigger and has a conductive touch pad for sensing contact by a user of the firearm. A touch sensing electronic circuit is coupled to the conductive touch pad and trigger and prevents the firearm from discharging if contact with the conductive contact pad is not sensed. Additionally, the safety system can be configured to conserve battery power of electronic firearms by providing a signal to wake-up the system controller.

**Method for Identification:** Electric Transponder

**Assignee(s):** MATTESON DAVID O

**Application (Year/Month):** 2005-11

**Publication (Year/Month):** 2006-05

**Legal Status:** Pending

**Learn More:** <https://patents.google.com/patent/US20060101694A1/en>

## FIREARMS SECURITY

**Publication Number:** CA2292503C

**Abstract:** This invention provides security measures for electronically operated munitions and firearms such as the pistol (10). The electronic controls (18) may be armed or disarmed electronically and provided with encoding means which arms the electronic controls to enable firing of the secured weapon upon the monitoring authorised code. This code may be electronically personalised to the individual. The code may be provided by a swipe card or the like carried by the authorised personnel. Alternatively the code may be biometric data which retains a lifelong distinctive identity of the authorised personnel.

**Method for Identification:** Electric Transponder, Personal Identification Card, or Finger Print, Voice Control, or Palm Print

**Assignee(s):** METAL STORM LIMITED

**Application (Year/Month):** 1998-06

**Publication (Year/Month):** 1998-12

**Legal Status:** Active

**Learn More:** <https://patents.google.com/patent/CA2292503C/en>

## Automatic weapon user identification and safety module

**Publication Number:** US20020112390A1

**Abstract:** An automatic weapon safety system where power consumption is reduced and safety is increased is disclosed. The system includes a movement detector operatively associated with the handgrip of a weapon for detecting the presence of a hand on the handgrip. The system also has a transceiver operatively associated with the movement detector for sending a coded signal when the weapon has been gripped. The coded signal is received by at least one remote token which receives the coded signal and transmits a coded acknowledgement signal upon receipt of the coded signal. A system is provided for enabling and disabling the weapon, operatively connected to the transceiver for allowing operation of the weapon when the coded acknowledgement signal has been received. The system may

include two tokens, which are worn by the authorized user. In this case, the transceiver further includes an anti-collision module to discriminate between the different tokens and select which one will be permitted to issue the coded acknowledgement signal. Also preferably, the transceiver includes an anti-jamming module. Verification of the token can be done every time the trigger is depressed. Alternately, verification can be done only once, when the weapon is first gripped, and authorization remains until the handgrip is let go. Furthermore, since bi-directional RF communication is effected only when the trigger is depressed, power consumption is reduced.

**Method for Identification:** Electronic Transponder or Palm Print

**Assignee(s):** MILLER RODNEY | FRYDMAN HERSHEL | HARLING GORD

**Application (Year/Month):** 2001-11

**Publication (Year/Month):** 2002-08

**Legal Status:** Pending

**Learn More:** <https://patents.google.com/patent/US20020112390A1/en>

## Holder for personal protection devices

**Publication Number:** EP0801286B1

**Abstract:** Abstract of EP0801286 An automatic disarming device for use with a portable personal protection apparatus is disclosed which disarms the protection device when taken from an authorized user thereby preventing the device from being used against the authorized user. The automatic disarming device includes a housing for supporting the personal protection apparatus, an operating mechanism on the housing for actuating the personal protection apparatus, and a removable arming member which renders the operating mechanism inoperative when separated from the housing.

**Method for Identification:** Hand Held or Body-Worn Device

**Assignee(s):** GUARDIAN ROYALTY CORPORATION

**Application (Year/Month):** 1996-04

**Publication (Year/Month):** 2002-06

**Legal Status:** Active

**Learn More:** <https://patents.google.com/patent/EP0801286B1/en>

## TOUCH SENSOR FIREARM SAFETY SYSTEM

**Publication Number:** EP1809976B1

**Abstract:** "There is no abstract available for this patent."

**Method for Identification:** Electronic Transponder

**Assignee(s):** R.A. BRANDS L.L.C.

**Application (Year/Month):** 2005-11

**Publication (Year/Month):** 2010-04

**Legal Status:** Active

**Learn More:**

<http://share.analytics.patsnap.com/view/3E26765AFC6228EA6DEEDF684F66B09335F008E822E933EA>

## ELECTRONIC LOCK SYSTEM OF FIREARMS TRIGGER

**Publication Number:** WO2008151402A3

**Abstract:** The Electronic Lock System of Firearms Trigger receives a long-distance command (remote control), via radio control, to lock the trigger of the weapon, verifies the database if this command is valid and sent by management team and, if so, keeps the trigger locked or locks it, and does not allow unauthorized people make use of the weapon. The Electronic Locking System of Firearms Trigger consists of a transceiver - transmitter / receiver (2), which will receive the command from long- distance lock. The received information will be analyzed by a microcontroller (3) that it will give the permission to make shots. The decision will be sent to a microdrive (4) that, if the user has authorization, or if there is no order of locked, release the trigger (6). If the user has been unauthorized remotely by management team, the trigger (6) will not be released. If the trigger (6) already released and a locked command is sent during use, a decision will be sent from the microcontroller (3) to the microdrive (4), that it will lock the trigger (6) and prevent the user from making new shots.

**Method for Identification:** Electronic Transponder

**Assignee(s):** MARTINS CARNEIRO, NILTON

**Application (Year/Month):** 2008-06

**Publication (Year/Month):** 2008-12

**Legal Status:** Active

**Learn More:** <https://patents.google.com/patent/WO2008151402A3/en>

## System for activating a weapon with an identification mechanism

**Publication Number:** US20040244253A1

**Abstract:** A system for activating a weapon to a state of readiness to fire includes an identification mechanism which is carried by the user of the weapon. The identification mechanism includes a sensor configured to input an identification code, a store configured to store the identification code and a transmitter. A receiver is provided in the weapon. The transmitter sends an activation signal to the receiver upon a positive identification code comparison. The activation signal activates the weapon to a

state of readiness to fire. To maintain the weapon in this activation state, the transmitter continuously emits a signal to the receiver. The receiver controls a processor which is configured to maintain the weapon in the activation state based exclusively on the strength of the signals continuously being received by the receiver. To maintain the weapon in this state, the strength of the received signals must be equal to or greater than the strength of the signals received by the receiver when the identification mechanism is at a specified distance from the weapon.

**Method for Identification:** Electronic Transponder or Personal Identification Code

**Assignee(s):** GLOCK GASTON

**Application (Year/Month):** 2004-02

**Publication (Year/Month):** 2004-12

**Legal Status:** Granted

**Learn More:** <https://patents.google.com/patent/US20040244253A1/en>

## Security lock for hand gun

**Publication Number:** US5946840

**Abstract:** A safety system for disabling a firearm and for maintaining the firearm in the disabled condition. The system is made up of a safety mechanism and personalized code key, which can be conveniently carried by the authorized operator, and which can be inserted into the handle of the weapon to be fired. The safety mechanism includes a specially designed safety lever which is maintained in a disabled, or safe condition, by a uniquely designed pawl element which positively prevents movement of the safety lever into a weapon-firing position until the pawl element is moved relative to the lever by an actuator mechanism of simple design which uniquely comprises a length of electrically conductive wire which shrinks when heated by an electrical current. With this construction, as the actuator wire shrinks, substantial forces are exerted on the pawl element of the system to move it out of the safe or gun-disabling position.

**Method for Identification:** N/A

**Assignee(s):** MICKEL; KENNETH L.

**Application (Year/Month):** 1997-12

**Publication (Year/Month):** 1999-09

**Legal Status:** Expired-Fee Related

**Learn More:** <https://patents.google.com/patent/US5946840A/en>

## FIREARM LOCKING ASSEMBLY

**Publication Number:** US20140366419A1

**Abstract:** A firearm locking assembly combines a firearm and a locked safety assembly and is configured to allow owner and deny non-owner use. The assembly allows owner unencumbered use without an alarm sounding. The assembly allows owner very fast unlocking without the use of anything external, except the owner's hands. Motion detector and alarm plus trigger lock guard against the firearm being taken to a school, public place, or unauthorized use and theft. The assembly includes automatic locking if the firearm it is put down or forcefully taken away. The assembly includes means for a multiple position safety lever to signal: 1) if firearm is locked, 2) if firearm ready to accept code, 3) if firearm is unlocked, and 4) if firearm is in timed unlocked mode. The assembly also includes law enforcement and military modes, audio and silent FM alarm, a GPS and a digital camera.

**Method for Identification:** Electronic Transponder

**Assignee(s):** ALLAN, ROBERT M.

**Application (Year/Month):** 2013-06

**Publication (Year/Month):** 2014-12

**Legal Status:** Pending

**Learn More:** <https://patents.google.com/patent/US20140366419A1/en>

## FINGERPRINT-ACQUISITION APPARATUS FOR ACCESS CONTROL; PERSONAL WEAPON AND OTHER SYSTEMS CONTROLLED THEREBY

**Publication Number:** CA2211910A1

**Abstract:** At a first end of an optic-fiber prism assembly are fiber terminations to contact a relieved surface, e.g. finger (stabilized by a handgrip). In a region where fiber diameter is essentially constant with longitudinal position, light enters the prism, crosses the fibers and enters individual fibers through their sidewalls, lighting the terminations. To allow crosslighting of the assembly, the fiber-optic numerical aperture (NA) is small: preferably not exceeding one-half. Due to fingerprint etc. detail, fractions of light pass along the fibers; at the assembly second end a detector responds with an electrical-signal array based on the surface relief. The signals are processed to check finger etc. identity and applied to control access to a personal weapon, other equipment, facilities, data, or a money service. FTIR ("frustrated total internal reflection") bright- and dark-field versions have various benefits. For use of small, low-cost detectors - and/or internal-mirror versions that light the finger straight-on - the assembly has a separate element, e.g. a high-NA fiber-optic taper with extramural absorption or "EMA" material (no entry light crosses it). For a weapon, a unitary antibypassing module (which matches a weapon port, and must be present) holds part of the access-control and firing systems. Bullets etc. fire only on a special signal from the module.

**Method for Identification:** Electric Transponder, Personal Identification Card, or Finger Print, Voice Control, or Palm Print

**Assignee(s):** ARETE' ASSOCIATES INC

**Application (Year/Month):** 1996-01

**Publication (Year/Month):** 1996-08

**Legal Status:** Active

**Learn More:** <https://patents.google.com/patent/CA2211910A1/en>

## Fingerprint safety lock for firearms

**Publication Number:** US6874265

**Abstract:** A locking system for firearms that utilizes an owner's fingerprint to lock and unlock it is disclosed. Upon initial observation of the invention, it appears like a conventional fire arm lock that goes around the trigger and immobilizes it. Fingerprint sensors are provided that will only acknowledge the fingerprint and thumb print of the gun owner. When the owner touches the sensors once, the present invention will unlock, and when they are touched again, it will lock. A small computerized chip, in conjunction with a lithium battery and an advancement mechanism such as a stepper motor perform the actual locking duties. The housing of the invention is made of titanium to prevent tampering.

**Method for Identification:** Electric Transponder, Personal Identification Card, or Finger Print, Voice Control, or Palm Print

**Assignee(s):** PATHAK SUMIT M.

**Application (Year/Month):** 2004-05

**Publication (Year/Month):** 2005-04

**Legal Status:** Expired- Fee Related

**Learn More:** <https://patents.google.com/patent/US6874265B1/en>

## TRIGGER SAFETY DEVICE

**Publication Number:** US20050235544A1

**Abstract:** An attachable combination trigger safety device having combination locks, a lock lever and a pressure point release. The device is inserted in a gun trigger housing to prevent accidental gun firing. A press pin engages a cam that rotates with the lock lever so that the lock lever cannot release the gun trigger. The combination locks prevent the press pin from disengaging the cam. The combination locks must be opened so that the press pin can be held disengaged from the cam, and so that the user can rotate the lock lever to an open position.

**Method for Identification:** Combination Lock

**Assignee(s):** BISCHOFF BRUNO K

**Application (Year/Month):** 2005-04

**Publication (Year/Month):** 2005-10

**Legal Status:** Pending

**Learn More:** <https://patents.google.com/patent/US20050235544A1/en>

## Weapon control system and method

Publication Number: US4488370

**Abstract:** A system and method are provided for controlling the operation of a weapon, such as a hand gun, to prevent it from being accidentally operated or operated by a person who is not the owner of the weapon or someone who is not authorized to use the weapon. In one form, a microminiature electronic circuit is provided within the weapon and is operable to generate a radio frequency energy field in the vicinity of the trigger for the weapon. An electrical device, such as an inductor, is supported on the wrist or finger of the person owning the gun and serves as an absorber of some of the field energy which energy absorption is detected by a suitable detector forming part of the electronic circuit whereupon a control signal is generated for controlling a motor or solenoid to operate a stop or latch in a manner to disengage an operating portion of the weapon, such as the trigger or trigger mechanism and allow such mechanism to be manually operated. In another form, a passive electronic circuit worn on the arm or finger of the person owning or authorized to use the weapon, becomes activated by field energy generated by the electronic circuit supported in the weapon and generates a signal or code which is short wave transmitted to the weapons electronic circuit causing a control signal to be generated which operates a motor or solenoid which drives a latch or stop to a position whereby the weapon may be operated.

**Method for Identification:** Electronic Transponder

**Assignee(s):** LEMELSON JEROME H

**Application (Year/Month):** 1982-02

**Publication (Year/Month):** 1984-12

**Legal Status:** Expired

**Learn More:** <https://patents.google.com/patent/US4488370A/en>

## Authorized Firearm Bearer Identification System

Publication Number: US20110029009A1

**Abstract:** An identification system and method that enables third parties, such as uniformed police officers, to identify another authorized firearms bearer, in order reduce risk of misidentification of intent that might otherwise lead to an unfortunate accidental injury during an incident response. The system includes an identification tag that is selectively affixable to a firearm in a position visible to third parties. The identification tag is selectively affixed in a stored position that preferably is furled so that it does not interfere with firearms storage or usage. The tag is deployable in an extended position to increase potential recognition to third parties. The tag desirably may also be wearable by the firearms bearer, such as a wrist band, head band or sash.

**Method for Identification:** Hand Held or Body-Worn Device

**Assignee(s):** DIETL RICHARD

**Application (Year/Month):** 2010-07

**Publication (Year/Month):** 2011-02

**Legal Status:** Pending

**Learn More:** <https://patents.google.com/patent/US20110029009A1/en>

## STAND-ALONE WEAPONS STORAGE AND LOCKING RACK WITH BIOMETRIC INPUT AND PROCESSOR DRIVEN RELEASE AUTHORIZATION, MAINTENANCE AND INVENTORY CONTROL

**Publication Number:** CA2552453A1

**Abstract:** A weapon access control system having a rack structure exhibiting a plurality of weapons in exposed and individually locked fashion. A processor operatively actuates each of the plurality of individual weapon locking mechanisms incorporated into the rack structure in response to successive biometric and weapon selection inputs communicating with the processor for determining at least one of user identification and weapon release authorization prior to the processor actuating the locking mechanism to release the weapon. An associated computer writeable medium operates with the processor and establishes a series of subroutines for establishing user identification, weapons rating, selective weapon release/reentry and associated maintenance and record keeping log reports.

**Method for Identification:** Remotely activated

**Assignee(s):** PATTI ENGINEERING

**Application (Year/Month):** 2006-07

**Publication (Year/Month):** 2007-01

**Legal Status:** Active

**Learn More:** <https://patents.google.com/patent/CA2552453A1/en>

## DEVICE FOR SECURING A FIREARM AND ALSO FOR SECURING AND/OR STORING OBJECTS

**Publication Number:** CA2262100A1

**Abstract:** The invention concerns an installation for securing a firearm against unauthorized removal and/or firing, as well as for securing and/or storing objects against unauthorized removal, comprising a locking device (9, 10; 14) and an identification device (11, 16). The identification device (11, 16) is designed for wireless exchange at least of unmistakable identification codes (30, 36), and consists of at

least one sending and/or receiving unit (18, 19, 20) allocated to an authorized user and another one allocated to the identification device (11, 16). At a distance or over a range of distances between the sending and/or receiving units (18, 19, 20) of 0 to 1,000 mm, but preferably 0 to 50 mm, and matching identification codes (30, 36) of the user's sending and/or receiving unit (19) and the identification device's (11, 16) sending and/or receiving unit (18, 20), the locking device (9, 10; 14) is de-activated by the identification device (11, 16).

**Method for Identification:** Electronic Transponder

**Assignee(s):** RIENER KARL STEFAN

**Application (Year/Month):** 1997-07

**Publication (Year/Month):** 1998-02

**Legal Status:** Active

**Learn More:** <https://patents.google.com/patent/CA2262100A1/en>

## Method for activating a weapon with an identification mechanism

**Publication Number:** US7886471

**Abstract:** A system for activating a weapon to a state of readiness to fire includes an identification mechanism which is carried by the user of the weapon. The identification mechanism includes a sensor configured to input an identification code, a store configured to store the identification code and a transmitter. A receiver is provided in the weapon. The transmitter sends an activation signal to the receiver upon a positive identification code comparison. The activation signal activates the weapon to a state of readiness to fire. To maintain the weapon in this activation state, the transmitter continuously emits a signal to the receiver. The receiver controls a processor which is configured to maintain the weapon in the activation state based exclusively on the strength of the signals continuously being received by the receiver. To maintain the weapon in this state, the strength of the received signals must be equal to or greater than the strength of the signals received by the receiver when the identification mechanism is at a specified distance from the weapon.

**Method for Identification:** Electronic Transponder

**Assignee(s):** GLOCK GASTON

**Application (Year/Month):** 2004-02

**Publication (Year/Month):** 2011-02

**Legal Status:** Active

**Learn More:** <https://patents.google.com/patent/US7886471B2/en>

## Security apparatus for use in a firearm

**Publication Number:** US6421944

**Abstract:** A security apparatus is proposed for a firearm adapted to fire a non-impact ammunition cartridge, the firearm including a trigger assembly manually actuated by a trigger member and an

integrated backstrap module which houses an electronic firing apparatus for generating a firing signal. The security apparatus includes an input device for accepting and storing a plurality of parameter signals indicative of a physical state of the firearm, and a mode setting device for determining and selectively placing the firearm in one of an awake mode, a sleep mode and an authorized mode. The security apparatus further includes an enabling device for evaluating the plurality of said parameter signals and permitting the firing apparatus to generate and communicate the firing signal to the ammunition cartridge only when each of the plurality of parameter signals indicate that said firearm is prepared to fire and the mode device determines that the firearm is in the authorized mode.

**Method for Identification:** Electronic Transponder

**Assignee(s):** SMITH & WESSON CORP.

**Application (Year/Month):** 2000-07

**Publication (Year/Month):** 2002-07

**Legal Status:** Expired- Fee Related

**Learn More:** <https://patents.google.com/patent/US6421944B1/en>

## Firearm housing with heavy-duty locking mechanism

**Publication Number:** US20070051026A1

**Abstract:** A safety housing for a firearm includes a biometric or other access authentication device, an enclosure, a frame assembly, a slide assembly, and a door. The frame and the slide assemblies nest within the enclosure, the frame assembly affixes to the enclosure, and the slide assembly moves relative to the frame assembly. The door moves between an open position in which the firearm is removable through an access opening in the housing, and a closed position covering the access opening. The housing has cooperating internal components that operate to lock the door closed when the slide assembly is locked in place, to unlock the door when the slide assembly is released, to move the door open when the slide assembly is moved upwards, and to move the door closed when the slide assembly is moved downwards. Also, the frame assembly has adjustably positionable support elements for different firearms.

**Method for Identification:** Electric Transponder, Personal Identification Card, or Finger Print, Voice Control, or Palm Print

**Assignee(s):** VOR KELLER ALBERT W

**Application (Year/Month):** 2006-05

**Publication (Year/Month):** 2007-03

**Legal Status:** Granted

**Learn More:** <https://patents.google.com/patent/US20070051026A1/en>

## APPARATUS FOR FIREARM SAFETY

**Publication Number:** US20150253093A1

**Abstract:** An apparatus comprises a trigger assembly for initiating a firing of a firearm. The trigger assembly comprises a trigger blocking portion. A safety selector lever is configured for joining to the firearm. The safety selector lever has an on position with the safety selector generally in a downward position and accessible to a user's thumb of a hand gripping a grip of the firearm. The safety selector is rotatable by the user's thumb to an off position where the user operates the trigger assembly while maintaining the safety selector in the off position. A safety cam is in engagement with a pivot end of the safety selector. The safety cam is configured for engaging the trigger blocking portion in the on position to inhibit the firing and for engaging the trigger blocking portion in the off position to enable the firing.

**Method for Identification:** Trigger Block

**Assignee(s):** ALLAN, ROBERT M.

**Application (Year/Month):** 2014-06

**Publication (Year/Month):** 2015-09

**Legal Status:** Pending

**Learn More:** <https://patents.google.com/patent/US20150253093A1/en>

## FIREARM SECURITY APPARATUS

**Publication Number:** U

**Abstract:** An apparatus for storing a firearm, particularly a long gun, in a secure manner but in which the firearm is readily available to an authorized person. The apparatus may be mounted on a vertical wall. A door assembly is pivotally connected to a main housing and can be locked in a closed position to secure the interior of the housing against unauthorized entry. Adjustable access inhibitor components allow the apparatus to be customized for use with a user-selected model of firearm without compromising security. Movable components within the housing interior hold the selected firearm in a desired position.

**Method for Identification:** Gun Safe

**Assignee(s):** BOOMSTIX, LLC

**Application (Year/Month):** 2015-03

**Publication (Year/Month):** 2015-09

**Legal Status:** Pending

**Learn More:** <https://patents.google.com/patent/US20150260480A1/en>

## Fingerprint-Acquisition apparatus for access control; personal weapon and other systems controlled thereby

**Publication Number:** US5812252

**Abstract:** At a first end of an optic-fiber prism assembly are fiber terminations to contact a relieved surface, e.g. finger (stabilized by a handgrip). In a region where fiber diameter is essentially constant with longitudinal position, light enters the prism, crosses the fibers and enters individual fibers through their sidewalls, lighting the terminations. To allow crosslighting of the assembly, the fiber-optic numerical

aperture (NA) is small: preferably not exceeding one-half. Due to fingerprint etc. detail, fractions of light pass along the fibers; at the assembly second end a detector responds with an electrical-signal array based on the surface relief. The signals are processed to check finger etc. identity and applied to control access to a personal weapon, other equipment, facilities, data, or a money service. FTIR ("frustrated total internal reflection") bright- and dark-field versions have various benefits. For use of small, low-cost detectors-and/or internal-mirror versions that light the finger straight-on-the assembly has a separate element, e.g. a high-NA fiber-optic taper with extramural absorption or "EMA" material (no entry light crosses it). For a weapon, a unitary antibypassing module (which matches a weapon port, and must be present) holds part of the access-control and firing systems. Bullets etc. fire only on a special signal from the module.

**Method for Identification:** Electric Transponder, Personal Identification Card, or Finger Print, Voice Control, or Palm Print

**Assignee(s):** ARETE ASSOCIATES

**Application (Year/Month):** 1995-01

**Publication (Year/Month):** 1998-09

**Legal Status:** Expired

**Learn More:** <https://patents.google.com/patent/US5812252A/en>

## SELECTIVE RELEASE FIREARM SECURITY LOCK

**Publication Number:** WO1997026471A1

**Abstract:** A security lock system (10) for locking a firearm (12) within a storage device (14) until approached by the hand (16) of an authorized user employs a hand-mounted transmitter unit (18) to transmit a characteristic signal. A receiver unit (20) located within the storage device receives the signal which is then processed by a processor to identify the characteristic signal, the processor generating a release signal on identification of the information. When a signal corresponding to an authorized transmitter unit is detected within range, the processor actuates unlocking of a lock mechanism (22) to allow removal of the firearm (12). The transmitter unit (18) is preferably implemented as a passive transponder (58). The transponder responds to an interrogatory electromagnetic signal transmitted by a primary transmitter (66) mounted within the storage device (14).

**Method for Identification:** Electronic Transponder

**Assignee(s):** KISREMAN, BOAZ

**Application (Year/Month):** 1997-01

**Publication (Year/Month):** 1997-07

**Legal Status:** Active

**Learn More:** <https://patents.google.com/patent/WO1997026471A1/en>

## Identification control of firearm

**Publication Number:** US8037632

**Abstract:** A firearm including a trigger-actuated firing mechanism, a safety device that selectively prevents and permits the firing mechanism to be actuated, and an authentication device that cooperates with the safety device and which recognizes a feature of an authorized shooter, wherein the safety device is nominally in a position that permits the firing mechanism to be actuated and is moved to a position that prevents the firing mechanism from being actuated only if the authentication device does not recognize a would-be shooter as an authorized shooter.

**Method for Identification:** Electric Transponder, Personal Identification Card, or Finger Print, Voice Control, or Palm Print

**Assignee(s):** PIKIELNY DOV

**Application (Year/Month):** 2007-05

**Publication (Year/Month):** 2011-10

**Legal Status:** Active

**Learn More:** <https://patents.google.com/patent/US8037632B2/en>

## Location-based firearm discharge prevention

**Publication Number:** US6415542

**Abstract:** A firearm, program product and method collectively utilize an on-board location sensor (e.g., a GPS receiver) and stored location information to selectively inhibit discharge of a firearm based on the current location of the firearm. Location information identifying one or more prohibited locations is stored in the firearm (typically in an on-board memory). A controller on-board the firearm then accesses the location sensor to determine a current location for the firearm, and selectively inhibits the discharge of the firearm if the current location is proximate any prohibited location.

**Method for Identification:** Electronic Transponder

**Assignee(s):** INTERNATIONAL BUSINESS MACHINES CORPORATION

**Application (Year/Month):** 2000-04

**Publication (Year/Month):** 2002-07

**Legal Status:** Expired- Fee Related

**Learn More:** <https://patents.google.com/patent/US6415542B1/en>

## APPARATUS AND METHODS FOR SAFE USE AND STORAGE OF FIREARMS AND WEAPONS

**Publication Number:** US20150247692A1

**Abstract:** A lock for a firearm or weapon is disclosed that enables the weapon when control is established by a user while the weapon is in a storage location or holding device. The weapon remains operable as long as the user continuously remains in control but is disabled until returned to the storage location or device if the user relinquishes control. Storage and user zones are defined by weapon location or input devices such as a grip safety. Mechanical devices or signals transfer the zone determinations to

a logic device. When the logic device, which may be mechanical, electronic or implemented in other way, determines that the weapon is considered to be both in the storage zone and the user zone and it causes transition to an operable state. The logic device causes transition to an inoperable state if the weapon is determined not to be in either zone.

**Method for Identification:** GPS

**Assignee(s):** HARVEY, THOMAS DANAHER

**Application (Year/Month):** 2014-06

**Publication (Year/Month):** 2015-09

**Legal Status:** Granted

**Learn More:** <https://patents.google.com/patent/US20150247692A1/en>

## Alarm System and Alarm Device

**Publication Number:** US20080204231A1

**Abstract:** An alarm system includes a detector arranged in connection with a holster for carrying a force instrument, the detector detecting, if the force instrument is removed from the holster; information on the situation is produced on the basis of the identification and relayed to the user's control room so that a message is relayed to the communication unit of the user of the force instrument, the communication unit relaying the message further to the control room via a base station. The detector is adapted to detect the existence of the force instrument in the holster, its missing from or its movement out of or into the holster. A detector-cpu is adapted to receive a signal or message from the detector and forms at least part of the contents of the message on the basis of the signal or message, the detector-cpu being adapted to control the communication unit to transmit the message.

**Method for Identification:** Electronic Transponder and Holster

**Assignee(s):** SAVOX COMMUNICATIONS OY AB (LTD.)

**Application (Year/Month):** 2006-06

**Publication (Year/Month):** 2008-08

**Legal Status:** Granted

**Learn More:** <https://patents.google.com/patent/US20080204231A1/en>

## IDENTIFICATION CONTROL OF FIREARM

**Publication Number:** US20080289237A1

**Abstract:** A firearm including a trigger-actuated firing mechanism, a safety device that selectively prevents and permits the firing mechanism to be actuated, and an authentication device that cooperates with the safety device and which recognizes a feature of an authorized shooter, wherein the safety device is nominally in a position that permits the firing mechanism to be actuated and is moved to a position that prevents the firing mechanism from being actuated only if the authentication device does not recognize a would-be shooter as an authorized shooter.

**Method for Identification:** Electric Transponder, Personal Identification Card, or Finger Print, Voice Control, or Palm Print

**Assignee(s):** PIKIELNY DOV

**Application (Year/Month):** 2007-05

**Publication (Year/Month):** 2008-11

**Legal Status:** Granted

**Learn More:** <https://patents.google.com/patent/US20080289237A1/en>

## Firearm locking system user interface

**Publication Number:** US9057571

**Abstract:** A locking system for a firearm is disclosed. A lock has a set state and an unset state, and substantial movement of any one or more fire control group components is inhibited with in the set state. A biometric sensor attachable to a grip of the firearm is receptive to an input biometric feature data set corresponding to a physiological feature of a user. A biometric input controller stores biometric feature data sets corresponding to enrolled user identities in a memory, and compares it against the input biometric feature data set to generate a biometric input validation status indicator signal. A proximity sensor attachable to the grip detects possession of the firearm by the user and generates a corresponding grip detection indicator signal. A system controller selectively actuates the lock to the set state and the unset state based upon a received combination and sequence of the biometric input validation status indicator signal and the grip detection indicator signal.

**Method for Identification:** Electric Transponder, Personal Identification Card, or Finger Print, Voice Control, or Palm Print

**Assignee(s):** INTELLIGUN, LLC

**Application (Year/Month):** 2014-03

**Publication (Year/Month):** 2015-06

**Legal Status:** Active

**Learn More:** <https://patents.google.com/patent/US9057571B2/en>

## FIREARM LOCKING SYSTEM

**Publication Number:** US20130019510A1

**Abstract:** A locking system for a firearm is disclosed. A lock has a set state and an unset state, and substantial movement of any one or more fire control group components is inhibited with in the set state. A biometric sensor attachable to a grip of the firearm is receptive to an input biometric feature data set corresponding to a physiological feature of a user. A biometric input controller stores biometric feature data sets corresponding to enrolled user identities in a memory, and compares it against the input biometric feature data set to generate a biometric input validation status indicator signal. A proximity sensor attachable to the grip detects possession of the firearm by the user and generates a corresponding grip detection indicator signal. A system controller selectively actuates the lock to the set

state and the unset state based upon a received combination and sequence of the biometric input validation status indicator signal and the grip detection indicator signal.

**Method for Identification:** Electric Transponder, Personal Identification Card, or Finger Print, Voice Control, or Palm Print

**Assignee(s):** KEMMERER JASON

**Application (Year/Month):** 2011-07

**Publication (Year/Month):** 2013-01

**Legal Status:** Abandoned

**Learn More:** <https://patents.google.com/patent/US20130019510A1/en>

## AUTOMATIC TRIGGER GUARD FOR FIREARMS

**Publication Number:** US20140230300A1

**Abstract:** This Safety Device, which is intended for the safety of children, private citizen and law enforcement personnel, is a retrofit able Trigger Guard Assembly, which is attached to any existing handgun or firearm under the muzzle in front of the trigger guard, to prevent accidental or unauthorized discharge. The mechanism operates on gravity and levers or certain electro-mechanical mechanism and sensors, extends guard plates on both side of the trigger assembly, thereby making the firearm inoperable. As the gun is pointed downward or the authorized hand is at certain distance from the handgun the retractable guards extends and the mechanism is locked. The lock is released only if the firearm is; leveled, or the bio metrics of the user is matched, or the authorized hand is at a certain distance from the handgun, or certain digital/mechanical combination entered, and matches the data in the memory of the assembly.

**Method for Identification:** Trigger Block

**Assignee(s):** HAQ, ATAUL

**Application (Year/Month):** 2014-04

**Publication (Year/Month):** 2014-08

**Legal Status:** Pending

**Learn More:** <https://patents.google.com/patent/US20140230300A1/en>

## Gun safety locking devices

**Publication Number:** US5001854

**Abstract:** A safety device for locking a rifle, pistol or revolver so that it can not be accidentally discharged. The device operates by occupying the barrel of the gun and projecting into the breech. It is locked in place by a digital padlock which is used because it is difficult for children and unauthorized persons to open while being easy for an authorized person to open in the dark. Use of the device requires removal or displacement of parts of the weapon, increasing the safety provisions and guarding against accidental firing.

**Method for Identification:** Combination Lock

**Assignee(s):** DERMAN JAY S

**Application (Year/Month):** 1990-08

**Publication (Year/Month):** 1991-03

**Legal Status:** Expired

**Learn More:** <https://patents.google.com/patent/US5001854A/en>

## Firearm safety and control system

**Publication Number:** US6412207

**Abstract:** A firearm safety and control system and a safety magazine therefor are described. In one embodiment, a safety magazine disposed within a firearm disables or enables a firing control mechanism in the firearm upon sensing or not sensing the presence of, or communicating or not communicating with, an external communication and/or enabling device. In another embodiment, the safety magazine locks itself into or unlocks itself from the frame of the firearm upon sensing or not sensing the presence of, or communicating or not communicating with, an external communication and/or enabling devices. The safety magazine may be configured to be received in unmodified, existing, stock firearms.

**Method for Identification:** Electronic Transponder

**Assignee(s):** CRYE, CALEB CLARK

**Application (Year/Month):** 1999-03

**Publication (Year/Month):** 2002-07

**Legal Status:** Active

**Learn More:** <https://patents.google.com/patent/US6412207B1/en>

## SYSTEM AND METHOD FOR WEAPON DISCHARGE INHIBITION

**Publication Number:** US20110271574A1

**Abstract:** A firing inhibition system for a firearm includes an electromechanical actuator electrically connected to a dynamic grip recognition module including at least one sensor and a microcontroller, wherein the at least one sensor is located in a portion of a firearm operable to receive grip pressure from a user and wherein the at least one sensor is operable to transmit a signal to the microcontroller, wherein the microcontroller is operable to receive programming comprising grip pressure of an authorized user and is operable to interpret whether the grip pressure of the user matches the grip pressure of the authorized user, and to send a signal to the electromechanical actuator to actuate or to not actuate.

**Method for Identification:** Electric Transponder, Personal Identification Card, or Finger Print, Voice Control, or Palm Print

**Assignee(s):** NEW JERSEY INSTITUTE OF TECHNOLOGY

**Application (Year/Month):** 2011-03

**Publication (Year/Month):** 2011-11

**Legal Status:** Granted

**Learn More:** <https://patents.google.com/patent/US20110271574A1/en>

## Fingerprint-acquisition apparatus for access control; personal weapon and other systems controlled thereby

**Publication Number:** US5937557

**Abstract:** At a first end of an optic-fiber prism assembly are fiber terminations to contact a relieved surface, e. g. finger (stabilized by a handgrip). In a region where fiber diameter is essentially constant with longitudinal position, light enters the prism, crosses the fibers and enters individual fibers through their sidewalls, lighting the terminations. To allow crosslighting of the assembly, the fiber-optic numerical aperture (NA) is small: preferably not exceeding one-half. Due to fingerprint etc. detail, fractions of light pass along the fibers; at the assembly second end a detector responds with an electrical-signal array based on the surface relief. The signals are processed to check finger etc. identity and applied to control access to a personal weapon, other equipment, facilities, data, or a money service. FTIR ("frustrated total internal reflection") bright- and dark-field versions have various benefits. For use of small, low-cost detectors-and/or internal-mirror versions that light the finger straight-on-the assembly has a separate element, e. g. a high-NA fiber-optic taper with extramural absorption or "EMA" material (no entry light crosses it). For a weapon, a unitary antibypassing module (which matches a weapon port, and must be present) holds part of the access-control and firing systems. Bullets etc. fire only on a special signal from the module.

**Method for Identification:** Electric Transponder, Personal Identification Card, or Finger Print, Voice Control, or Palm Print

**Assignee(s):** ARETE ASSOCIATES

**Application (Year/Month):** 1997-12

**Publication (Year/Month):** 1999-08

**Legal Status:** Expired- Fee Related

**Learn More:** <https://patents.google.com/patent/US5937557A/en>

## FIREARM SAFETY SYSTEMS

**Publication Number:** WO2014130625A1

**Abstract:** A firearm safety system is described herein which may be configured to be personalized for use by one or more individuals who are authorized to use that firearm. The firearm may have the one or

more authorized individuals pre-authorized such that one or more of their biometric identifying information becomes associated with the weapon. During use, the firearm may readily identify whether the user is an authorized individual in which case the firearm may be used normally. In the event that the biometric feature of the detected user is an unauthorized individual, the firearm may become rendered unusable by automatically disengaging or inhibiting the firing mechanism.

**Method for Identification:** Electric Transponder, Personal Identification Card, or Finger Print, Voice Control, or Palm Print

**Assignee(s):** SAFE GUN TECHNOLOGY, INC.

**Application (Year/Month):** 2014-02

**Publication (Year/Month):** 2014-08

**Legal Status:** Active

**Learn More:** <https://patents.google.com/patent/WO2014130625A1/en>

## BIOMETRICALLY ACTIVATED LOCK AND ENABLEMENT SYSTEM

**Publication Number:** CA2366633A1

**Abstract:** A system (100) for locking, storing, enabling and disabling a device such as a conventional firearm, or an electronic firearm through the use of a control system (126, 134, 136) that is responsive to biometric data input utilizing biometric data input devices (134, 136) to enable both unlocking of a locking box (108, 128) or a trigger lock apparatus, as well as operation and firing of an electronically-controlled firearm (102) that has such features as an electronic locking system onboard or an electronic firing system, in a single authorization entry of biometric data (134).

**Method for Identification:** Electric Transponder, Personal Identification Card, or Finger Print, Voice Control, or Palm Print

**Assignee(s):** SMITH & WESSON CORP.

**Application (Year/Month):** 2000-01

**Publication (Year/Month):** 2000-11

**Legal Status:** Active

**Learn More:** <https://patents.google.com/patent/CA2366633A1/en>

## Fingerprint recognition safety systems

**Publication Number:** US9032657

**Abstract:** A universal fingerprint recognition system for firearms that greatly reduces misuse and accidental discharge of a firearm. The fingerprint recognition assembly is completely embedded within the firearm to prevent tampering. A chip embedded in the trigger scans the firearm owner's fingerprint, and when recognized releases a safety pin, allowing the trigger to be pulled. A charging port embedded in the firearm's grip allows a USB-type connector to be attached and charge the battery chip in the CPU.

**Method for Identification:** Electric Transponder, Personal Identification Card, or Finger Print, Voice Control, or Palm Print

**Assignee(s):** WALKER, KENNETH

**Application (Year/Month):** 2013-10

**Publication (Year/Month):** 2015-05

**Legal Status:** Active

**Learn More:** <https://patents.google.com/patent/US9032657B1/en>

## Firearm location tracking and location-based alerts

**Publication Number:** US8726556

**Abstract:** Various embodiments describe techniques for tracking a firearm and generating an alert when the firearm is outside a designated authorized location. In various embodiments, a location device, such as a Global Positioning System (GPS) receiver coupled to a transmitter, is affixed to and/or associated with a firearm. A location of the firearm is transmitted via the location device to a location service module. The location service module compares the location of the firearm to at least one designated authorized location and, responsive to determining that the location of the firearm is not within the designated authorized location, generates an alert. A firearm that includes a location device is also described.

**Method for Identification:** GPS

**Assignee(s):** WILLINGHAM THOMAS O.

**Application (Year/Month):** 2013-06

**Publication (Year/Month):** 2014-05

**Legal Status:** Active

**Learn More:** <https://patents.google.com/patent/US8726556B1/en>

## SAFETY GUN HOLSTER

**Publication Number:** US20140162584A1

**Abstract:** Systems, methods and apparatus are provided through which in some implementations a wired switch or sensor with a mounting system is mounted on a holster and is interfaced either electrically or through a radio transmitter to the radio in order to trip a panic button.

**Method for Identification:** Electronic Transponder, Holster, and GPS

**Assignee(s):** COPE SAMMY

**Application (Year/Month):** 2012-12

**Publication (Year/Month):** 2014-06

**Legal Status:** Pending

**Learn More:** <https://patents.google.com/patent/US20140162584A1/en>

## Novel smart holster

**Publication Number:** US20010033228A1

**Abstract:** A novel smart holster for retaining firearms, facilitating substantially immediate uninhibited access to qualified and authorized personnel, thereby preventing removal of the firearm by an unauthorized individual and geared towards aiding in any weapon retention technique including a holster and wireless remote unit. It is understood that the terms "receiver" and "transmitter" are used for the sake of clarity, in order to indicate whether a particular component resides on the wireless remote unit ("transmitter") or on the holster ("receiver"), as preferably both the remote unit and the holster feature a transceiver. The holster may optionally be incorporated with a mechanical lock and remote unit, which can either be installed as a complete system, or retrofitted on existing holsters with minimal modification.

**Method for Identification:** Electronic Transponder, Holster, Body-Worn Device

**Assignee(s):** EINAT MOSHE | KISREMAN BOAZ

**Application (Year/Month):** 2001-05

**Publication (Year/Month):** 2001-10

**Legal Status:** Pending

**Learn More:** <https://patents.google.com/patent/US20010033228A1/en>

## FIREARM SAFETY SYSTEM

**Publication Number:** WO2003074960A3

**Abstract:** A firearm safety system restricts the use of the firearm by reference to biometric data received by a sensor (23) coupled to the firearm trigger (26). The biometric data is compared to at least one record of biometric data associated with a permitted user to determine whether firearm actuation is permitted. Firearm actuation is controlled by an anchor (24) that is pivotally coupled to the firearm trigger (26). Firearm actuation is prevented when the anchor is extended between the trigger (26) and the trigger aperture (21). Firearm actuation is permitted when the anchor (24) is retracted in response to a positive identification by the sensor (23).

**Method for Identification:** Electronic Transponder, Personal Identification Card, or Finger Print, Voice Control, or Palm Print

**Assignee(s):** SPID 2002 CORP.

**Application (Year/Month):** 2002-03

**Publication (Year/Month):** 2004-01

**Legal Status:** Active

**Learn More:** <https://patents.google.com/patent/WO2003074960A3/en>

## Safety system

**Publication Number:** US4003152

**Abstract:** Normally disabled electrical and mechanical devices are caused to be enabled to operate by remote control signals having predetermined distinctive characteristics, such signals originating from enabling control equipment transported by an authorized person or persons. Receiving equipment providing output enabling signals only in response to received signals having the predetermined distinctive characteristics is preferably made integral with the mechanical or electrical devices involved and is coupled through appropriate electronic or electro-mechanical devices to the disabling means in the mechanical or electrical devices to be enabled.

**Method for Identification:** Electronic Transponder

**Assignee(s):** PRECISION THIN FILM CORPORATION

**Application (Year/Month):** 1975-10

**Publication (Year/Month):** 1977-01

**Legal Status:** Expired

**Learn More:** <https://patents.google.com/patent/US4003152A/en>

## NOVEL SMART HOLSTER

**Publication Number:** WO2002095317A3

**Abstract:** A novel smart holster (Fig.1) for retaining firearms (122), facilitating substantially immediate uninhibited access to qualified and authorized personnel, thereby preventing removal of the firearm by an unauthorized individual and geared towards aiding in any weapon retention technique including a holster (120) and wireless remote unit (128). It is understood that the terms "receiver" and "transmitter" are used for the sake of clarity, in order to indicate whether a particular component resides on the wireless remote unit ("transmitter") or on the holster ("receiver"), as preferably both the remote unit and the holster feature a transceiver. The holster may optionally be incorporated with a mechanical lock and remote unit (128), which can either be installed as a complete system, or retrofitted on existing holsters with minimal modification.

**Method for Identification:** Electronic Transponder, Holster, Body-Worn Device

**Assignee(s):** KISREMAN, BOAZ | EINAT, MOSHE

**Application (Year/Month):** 2002-05

**Publication (Year/Month):** 2003-05

**Legal Status:** Active

**Learn More:** <https://patents.google.com/patent/WO2002095317A3/en>

## FIREARM SAFETY SYSTEM

**Publication Number:** WO2003074960A2

**Abstract:** A firearm safety system restricts the use of the firearm by reference to biometric data received by a sensor coupled to the firearm trigger. The biometric data is compared to at least one record of biometric data associated with a permitted user to determine whether firearm actuation is permitted. Firearm actuation is controlled by an anchor that is pivotally coupled to the firearm trigger. Firearm actuation is prevented when the anchor is extended between the trigger and the trigger aperture. Firearm actuation is permitted when the anchor is retracted in response to a positive identification by the sensor.

**Method for Identification:** Electronic Transponder, Personal Identification Card, or Finger Print, Voice Control, or Palm Print

**Assignee(s):** SPID 2002 CORP.

**Application (Year/Month):** 2002-03

**Publication (Year/Month):** 2003-09

**Legal Status:** Active

**Learn More:** <https://patents.google.com/patent/WO2003074960A2/en>

## FIREARMS PROTECTED FROM UNAUTHORIZED USE

**Publication Number:** US20080000130A1

**Abstract:** Firearms protected from unauthorized use are disclosed. A disclosed firearm comprises a housing having a handle; a safety located in the housing to selectively prevent firing; and a module removably attachable to the handle and containing an electronic identification device to identify an authorized user. The electronic identification device controls the safety to prevent firing by unauthorized persons and to permit firing by the authorized user.

**Method for Identification:** Electronic Transponder

**Assignee(s):** HECKLER & KOCH GMBH

**Application (Year/Month):** 2006-12

**Publication (Year/Month):** 2008-01

**Legal Status:** Granted

**Learn More:** <https://patents.google.com/patent/US20080000130A1/en>

Device for securing a firearm, as well as for securing and/or storing

## objects

**Publication Number:** US6510642

**Abstract:** The invention relates to a device for securing a firearm against unauthorised removal and/or firing and for securing and/or storing objects against unauthorised removal, which comprises a locking device (9, 10, 14) and an identification device (11, 16). The identification device (11, 16) is designed for the wireless exchange at least of unambiguous identification codes (30, 36) and comprises at least one transmission and/or receiving unit (18, 19, 20) assigned to an authorised user and another to the identification device (11, 16). At a distance or in a distance range between the transmission and/or receiving units (18, 19, 20) of 0 to 1000 mm, preferably 0 to 50 mm and corresponding identification codes (30, 36) of the transmission and/or receiving unit (19) of the user and the transmission and/or receiving unit (18, 20) of the identification device (11, 16) the locking device (9, 10, 14) is deactivated by the identification device (11, 16).

**Method for Identification:** Electronic Transponder

**Assignee(s):** RIENER KARL STEFAN

**Application (Year/Month):** 1999-05

**Publication (Year/Month):** 2003-01

**Legal Status:** Expired- Fee Related

**Learn More:** <https://patents.google.com/patent/US6510642B2/en>

## Firearms protected from unauthorized use

**Publication Number:** US20050000139A1

**Abstract:** Firearms protected from unauthorized use are disclosed. A disclosed firearm comprises a housing having a handle; a safety located in the housing to selectively prevent firing; and a module removably attachable to the handle and containing an electronic identification device to identify an authorized user. The electronic identification device controls the safety to prevent firing by unauthorized persons and to permit firing by the authorized user.

**Method for Identification:** Electronic Transponder, Personal Identification Card, or Finger Print, Voice Control, or Palm Print

**Assignee(s):** SCHUMACHER MICHAEL | MAUCH ERNST

**Application (Year/Month):** 2004-01

**Publication (Year/Month):** 2005-01

**Legal Status:** Granted

**Learn More:** <https://patents.google.com/patent/US20050000139A1/en>

## Apparatus for controlling use of a firearm

**Publication Number:** US20020157296A1

**Abstract:** A firearm security mechanism for use with a firearm to prevent unauthorized use of the firearm. The mechanism includes a scanning unit having a camera that obtains unique eye characteristics of a user's eye and sends that data to a central processing unit. The central processing unit compares the data to data representing the unique eye characteristics of an authorized users eye stored in a memory storage device. If the obtained data and the previously stored authorized user data match, a signal is transmitted to a latch mechanism that unlocks the trigger mechanism enabling discharge of the firearm.

**Method for Identification:** Electronic Transponder, Personal Identification Card, or Finger Print, Voice Control, or Palm Print

**Assignee(s):** CHILDS SCOTT P. | VIVIAN ALAN S.

**Application (Year/Month):** 2001-04

**Publication (Year/Month):** 2002-10

**Legal Status:** Pending

**Learn More:** <https://patents.google.com/patent/US20020157296A1/en>

## Audio controlled gun locking mechanism with gun identification storage and retrieval capability

**Publication Number:** US5636464

**Abstract:** A mechanism is for use with a weapon for storing desired information about the weapon and the person licensed to use the weapon on the weapon. The weapon includes an audio controlled blocking mechanism for inhibiting or enabling the weapon's firing mechanism in response to an audio frequency signal spoken by the weapon's user and received by a receiver installed on the weapon. The weapon has installed an audio recognition unit having an input from the receiver, and a processor which determines if a received signal matches predetermined, stored audio signals in order to both enable and inhibit. A memory stores information about the weapon and the authorized user. Information identifying at least the serial number of the weapon and the identity of the user is stored in the memory. An information encoder is available at the point of purchase of the weapon or another chosen location to load the information in the memory. The weapon is inhibited from use until the information is stored. A reader retrieves and displays the stored information at a location which may be remote from that at which the information is stored on the weapon.

**Method for Identification:** Electronic Transponder, Personal Identification Card, or Finger Print, Voice Control, or Palm Print

**Assignee(s):** CILUFFO; GARY

**Application (Year/Month):** 1996-08

**Publication (Year/Month):** 1997-06

**Legal Status:** Expired-Fee Related

**Learn More:** <https://patents.google.com/patent/US5636464A/en>

## Electric motor-driven semi-automatic handgun requiring micro-

## processor code for operation

**Publication Number:** US6408905

**Abstract:** The invention is a handgun in which the spring-loaded slide is replaced by an electric motor, engageable only upon an authorized user entering an access code. A combination rechargeable battery and keypad engages the butt of the handle where the magazine well is located and includes an electrical plug that fits into the handle, making an electrical connection between the battery and a microprocessor in the handgun. Entering the proper code on the keypad allows the microprocessor to complete the circuit between the battery and a motor that actuates the slide. When the device is not in use, the magazine having been removed, the motor then moves the slide rearward, ejecting any cartridge in the chamber, and maintains the slide in a position where the chamber is always open, thereby making obvious to anyone that the gun is not loaded.

**Method for Identification:** Electronic Transponder

**Assignee(s):** LEE FREDERICK A.

**Application (Year/Month):** 2000-12

**Publication (Year/Month):** 2002-06

**Legal Status:** Expired- Fee Related

**Learn More:** <https://patents.google.com/patent/US6408905B1/en>

## WEAPON CONTROL SYSTEM

**Publication Number:** US20150040453A1

**Abstract:** A firearm control system for a firearm authorized for use by a person having a validated identity comprises a firearm having a frame, barrel, firing mechanism and trigger. An interlock system is provided for enabling and disabling operation of the firearm, the interlock system being disposed on the frame and including a communications/control module, a trigger module operatively connected to the communication/control module, and operatively connected to the trigger to sense attempted operation of the trigger by a user and send signals to the communications/control module, and a firing mechanism module operatively connected to the communication/control module, and to the firing mechanism to enable or disable operation of the firing mechanism. The interlock system operates to enable and disable operation of the firearm based on signals sent to, and received from, the communications/control module.

**Method for Identification:** Electronic Transponder, Personal Identification Card, or Finger Print, Voice Control, or Palm Print

**Assignee(s):** POTENS IP HOLDINGS LLC

**Application (Year/Month):** 2014-03

**Publication (Year/Month):** 2015-02

**Legal Status:** Pending

**Learn More:** <https://patents.google.com/patent/US20150040453A1/en>

## MAGNETIC TAG FIREARM SAFETY ENHANCEMENT SYSTEM

Publication Number: WO2000049360A3

**Abstract:** A firearm safety enhancement system is provided for enabling use of a firearm only by an authorized individual. At least one electrically activated preventer (40) is provided having a first position for preventing use of firearm and having a second position for enabling use of the firearm. An electrical activation circuit (60) is operatively connected to the preventer to move the preventer between the first and second positions. A passive identification tag (72) is mounted to a personal adornment to be carried or worn by an individual and is preprogrammed with an authorized identification code preselected from a large number of available identification codes. The passive identification tag is responsive to a power signal to impose a coded return signal on the power signal. The return coded signal is representative of the preprogrammed authorized identification code so that the power signal acts as a carrier of the imposed coded return signal. The reader circuit is responsive only to an authorized identification code to activate the electrical activation circuit to provide power from the portable power supply to move the at least one preventer between the first preventing position and the second unblocked position for enabling use of the firearm.

**Method for Identification:** Electronic Transponder

**Assignee(s):** ADVANCED ORDNANCE CORPORATION

**Application (Year/Month):** 2000-01

**Publication (Year/Month):** 2000-12

**Legal Status:** Active

**Learn More:** <https://patents.google.com/patent/WO2000049360A3/en>

## SYSTEM FOR ACTUATING GUN AND UTILITY LOCKS WITH AN EXTERNAL MOBILE DEVICE

Publication Number: WO2014147616A1

**Abstract:** A safety holster, trigger lock and utility lock including an electronically actuated locking mechanism configured to admit the weapon or object into the device, and to engage a feature of the weapon, thereby preventing the withdrawal of the weapon prior to release of the electronically actuated locking mechanism; a control system including a microcontroller unit adapted to actuate the electronically actuated locking mechanism upon receipt of a control signal where the device provides for insertion of the weapon into the holster body/trigger guard, with the locking mechanism which admits the weapon during insertion, and which engages the weapon feature for retention of the weapon in a locked state upon receiving a locking control signal from an external device until the locking mechanism is disengaged by receiving an unlocking control signal from the external device.

**Method for Identification:** Electronic Transponder and Holster

**Assignee(s):** LOCKING CONTROL LTD.

**Application (Year/Month):** 2014-03

**Publication (Year/Month):** 2014-09

**Legal Status:** Active

**Learn More:** <https://patents.google.com/patent/WO2014147616A1/en>

## Firearms protected from unauthorized use

Publication Number: US7562480

**Abstract:** Firearms protected from unauthorized use are disclosed. A disclosed firearm comprises a housing having a handle; a safety located in the housing to selectively prevent firing; and a module removably attachable to the handle and containing an electronic identification device to identify an authorized user. The electronic identification device controls the safety to prevent firing by unauthorized persons and to permit firing by the authorized user.

**Method for Identification:** Electronic Transponder

**Assignee(s):** HECKLER & KOCH, GMBH

**Application (Year/Month):** 2006-12

**Publication (Year/Month):** 2009-07

**Legal Status:** Active

**Learn More:** <https://patents.google.com/patent/US7562480B2/en>

## MAGNETIC TAG FIREARM SAFETY ENHANCEMENT SYSTEM

Publication Number: WO2000049360A2

**Abstract:** A firearm safety enhancement system is provided for enabling use of a firearm only by an authorized individual. At least one electrically activated preventer is provided having a first position for preventing use of firearm and having a second position for enabling use of the firearm. An electrical activation circuit is operatively connected to the preventer to move the preventer between the first and second positions. A portable power supply is carried in said firearm and is coupled to the activation circuit for providing power. A power signal transmitter is operatively connected to the power supply for transmitting an electromagnetic power signal at a regular frequency. A passive identification tag is mounted to a personal adornment to be carried or worn by an individual and is preprogrammed with an authorized identification code preselected from a large number of available identification codes. The passive identification tag is responsive to the power signal to impose a coded return signal on the power signal. The return coded signal is representative of the preprogrammed authorized identification code so that the power signal acts as a carrier of the imposed coded return signal. A reader circuit is connected to the power signal transmitter and to the electrical activation circuit. The reader circuit is responsive only to an authorized identification code to activate the electrical activation circuit to provide power from the portable power supply to move the at least one preventer between the first preventing position and the second unblocked position for enabling use of the firearm.

**Method for Identification:** Electronic Transponder

**Assignee(s):** ADVANCED ORDNANCE CORPORATION

**Application (Year/Month):** 2000-01

**Publication (Year/Month):** 2000-08

**Legal Status:** Active

Learn More: <https://patents.google.com/patent/WO2000049360A2/en>

## SYSTEM FOR ACTUATING GUN AND UTILITY LOCKS WITH AN EXTERNAL MOBILE DEVICE

Publication Number: US20160054080A1

**Abstract:** A safety holster, trigger lock and utility lock including an electronically actuated locking mechanism configured to admit the weapon or object into the device, and to engage a feature of the weapon, thereby preventing the withdrawal of the weapon prior to release of the electronically actuated locking mechanism; a control system including a microcontroller unit adapted to actuate the electronically actuated locking mechanism upon receipt of a control signal where the device provides for insertion of the weapon into the holster body/trigger guard, with the locking mechanism which admits the weapon during insertion, and which engages the weapon feature for retention of the weapon in a locked state upon receiving a locking control signal from an external device until the locking mechanism is disengaged by receiving an unlocking control signal from the external device.

**Method for Identification:** Electronic Transponder

**Assignee(s):** LOCKING CONTROL LTD.

**Application (Year/Month):** 2014-03

**Publication (Year/Month):** 2016-02

**Legal Status:** Pending

Learn More: <https://patents.google.com/patent/US20160054080A1/en>

## Firearms protected from unauthorized use

Publication Number: US7155855

**Abstract:** Firearms protected from unauthorized use. A disclosed firearm comprises a housing having a handle; a safety located in the housing to selectively prevent firing; and a module removably attachable to the handle and containing an electronic identification device to identify an authorized user. The electronic identification device controls the safety to prevent firing by unauthorized persons and to permit firing by the authorized user.

**Method for Identification:** Electronic Transponder

**Assignee(s):** HECKLER & KOCH GMBH

**Application (Year/Month):** 2004-01

**Publication (Year/Month):** 2007-01

**Legal Status:** Active

Learn More: <https://patents.google.com/patent/US7155855B2/en>

## Firearm Safety Assembly

Publication Number: US20160054081A1

**Abstract:** A firearm safety assembly for preventing the firearm from being discharged by an unauthorized user includes a processor coupled to a firearm. A fingerprint scanner is coupled to the firearm. The fingerprint scanner may read an authorized user's fingerprint. The fingerprint scanner is operationally coupled to the processor. A thumbprint scanner is coupled to the firearm. The thumbprint scanner may read the authorized user's thumbprint. The thumbprint scanner is operationally coupled to the processor. A trigger lock is coupled to the firearm. The trigger lock is operationally coupled to the processor. The trigger lock allows the firearm to be fired when the processor receives the authorized user's fingerprint and thumbprint. A GPS is coupled to the firearm. The GPS is operationally coupled to the processor. The GPS determining a location of the firearm..

**Method for Identification:** Electronic Transponder, Personal Identification Card, or Finger Print, Voice Control, or Palm Print

**Assignee(s):** CREED, JAMES

**Application (Year/Month):** 2014-08

**Publication (Year/Month):** 2016-02

**Legal Status:** Pending

**Learn More:** <https://patents.google.com/patent/US7155855B2/en>

## SAFETY SYSTEM AND METHOD FOR REMOTELY DISABLING A WEAPON

Publication Number: WO2010039111A1

**Abstract:** A weapon including a first portion of a disarming protection circuit integrated into a removable magazine clip. The first portion of the disarming protection circuit is integrated into the magazine clip and includes, a high voltage source, a receiver for receiving a signal from a transmitter and an output. A second portion of the disarming protection circuit includes a conductor assembly including an electrode that extends adjacent to an inside wall of a magazine compartment. The first end of the electrode is electrically connected to a conductor connection adjacent to the output of the first portion of the circuit. A second end of the electrode is disposed through the handle and is exposed from outside the handle. An actuator generates the signal that connects the high voltage source in the circuit to the electrode in response to the output from the receiver. In response to the actuator being activated, the high voltage current source produced is electrically communicated through the electrode into the handle of the weapon with a sufficient shock to cause a person to release the weapon.

**Method for Identification:** Electronic Transponder

**Assignee(s):** OSBORNE, WAYNE | PITTS, DENNIS | CHANCE, DONALD

**Application (Year/Month):** 2008-10

**Publication (Year/Month):** 2010-04

**Legal Status:** Active

**Learn More:** <https://patents.google.com/patent/WO2010039111A1/en>

## Portable battery-powered safety lock

Publication Number: US5704151

**Abstract:** The present invention relates to a safety lock that is attachable to the trigger of firearms to prevent accidental or unauthorized discharge. The safety lock comprises a pair of opposed plates, one having one or more pins extending normal therefrom, the other having a set of complementary pin-receiving orifices and housing a locking mechanism. The locking mechanism is controlled by a battery-powered microprocessor which not only receives and analyzes signals from a keypad, but detects unauthorized signals, controls deactivation of the keypad for preset period of time upon the detection of unauthorized user or improper code input, controls an audio alarm signal of the keypad by an unauthorized user, controls a low-battery warning signal, allows the authorized user to change the authorized signal, provides a method for disabling the locking system other than through the user determined code input at the keypad, monitors, controls, and provides for a low-battery voltage drain; and illuminates the keypad upon activation of the safety lock.

**Method for Identification:** Electronic Transponder

**Assignee(s):** WEST, JAMES PAUL

**Application (Year/Month):** 1995-03

**Publication (Year/Month):** 1998-01

**Legal Status:** Expired-Fee Related

**Learn More:** <https://patents.google.com/patent/US5704151A/en>

## A SECURITY APPARATUS FOR AUTHORIZING USE OF A NON-IMPACT FIREARM

Publication Number: WO2002006753A2

**Abstract:** A security apparatus for use in authorizing the discharge of a firearm (10) having a firing apparatus includes a sensor assembly for receiving a plurality of operational parameters of the firearm and determining if the operational parameters are consistent with intent to discharge said the firearm therefrom. The security apparatus authorizes the firing apparatus to produce and send a check signal to an ammunition cartridge only if the operational parameters are consistent with an intent to discharge the firearm (10). The firing apparatus further generates a firing signal and provides the firing signal to the cartridge only if the check signal indicates that the cartridge is properly loaded in the firearm (10).

**Method for Identification:** Electronic Transponder, Personal Identification Card, or Finger Print, Voice Control, or Palm Print

**Assignee(s):** SMITH & WESSON CORP.

**Application (Year/Month):** 2001-05

**Publication (Year/Month):** 2002-01

**Legal Status:** Active

**Learn More:** <https://patents.google.com/patent/WO2002006753A2/en>

## HANDLE-MOUNTED LOCKING APPARATUS AND METHOD

Publication Number: CA2200637A1

**Abstract:** A locking apparatus for use on a handle operable to be gripped by a user's hand. The apparatus includes a moveable actuator operable to be moved by a portion of a user's hand when gripping the handle. A first moveable blocking member is connected to the handle and is operable to be moved into an enabling position in which movement of the movable actuator is enabled and is operable to be moved into a blocking position in which movement of the actuator is blocked by the blocking member interfering with movement of the actuator. A first mounted magnet is connected to the first blocking member and is disposed in a position on the handle such that at least one of the user's fingers will be adjacent the first mounted magnet when the handle is gripped. The first mounted magnet is operable to cooperate with a first adjacent magnet placed adjacent the first mounted magnet to move the first blocking member between the blocking and enabling positions. A method of unlocking an actuator on a handle includes gripping the handle such that an adjacent magnet on a finger ring worn by the user is placed adjacent a mounted magnet on the handle, attracting the mounted magnet with the adjacent magnet thereby moving a first blocking member out of the path of an actuator on the handle and squeezing the handle and the actuator to move the actuator relative to the handle.

**Method for Identification:** Combination Lock

**Assignee(s):** YU SANDY TAI SHEUNG

**Application (Year/Month):** 1997-03

**Publication (Year/Month):** 1997-09

**Legal Status:** Expired

**Learn More:** <https://patents.google.com/patent/CA2200637A1/en>

## FIREARM SAFETY SYSTEM

**Publication Number:** WO2014142920A1

**Abstract:** A firearm safety system and method is described herein. The system may include a tracking system, a smart firearm and/or a smart magazine, and a smart tracking unit. The tracking system is in communication with satellites that monitor specific locations, a smart firearm and a portable electronic device. The tracking system includes an internal geographical database of specific monitored locations. The smart firearm includes a microprocessor and a receiver. The motor operates in response to a signal received, which may indicate that the firearm is approaching a no gun safety zone, whereby the signal causes the microprocessor to operate the automatic safety lock to prevent the apparatus from operating. The receiver monitors signals and receives location data from the satellites. The method of operating a smart firearm includes receiving a signal at the at least one receiver and responding to the signal by locking the automatic safety lock.

**Method for Identification:** Electronic Transponder

**Assignee(s):** CARLSON, TREVOR

**Application (Year/Month):** 2013-03

**Publication (Year/Month):** 2014-09

**Legal Status:** n/a

**Learn More:** <https://patents.google.com/patent/WO2014142920A1/en>

## Method and apparatus for a weapon firing safety system

**Publication Number:** US5461812

**Abstract:** This invention teaches a novel method of safeguarding and protecting a weapon from being accidentally fired or misused by an unauthorized person. Without a verified pre-registration signal, an arming safety solenoid remains in a fail-safe position, preventing use of the weapon. The electronically actuated solenoid enables the use of trigger only when a valid identification signal is received. The system is comprised of microminiature circuits contained within the grip of the weapon and a ring that is worn on same hand that uses the firearm. When the weapon is first pickup by the intended user, a switch closure in the grip of the gun turns on a transmitter, which sends a low power, limited range interrogation signal to the finger ring. Upon receipt of this signal, a transponder mounted within the finger ring responds by sending a coded signal that contains a serial number identification. A microprocessor contained within the weapon then compares this decoded signal with one preregistered serial number stored in memory and if the comparison is valid, actuates the arming safety solenoid, allowing the gun to be fired. Arming the weapon for firing can only be accomplished upon receipt of a verifiable identification signal from the finger ring; the finger ring must be worn by user and be within the range of the electromagnetic transceivers and must be within the range of the magnetic metal sensors.

**Method for Identification:** Electronic Transponder

**Assignee(s):** BENNETT EMERIC S

**Application (Year/Month):** 1994-11

**Publication (Year/Month):** 1995-10

**Legal Status:** Expired

**Learn More:** <https://patents.google.com/patent/US5461812A/en>

## Normally enabled firearm control system that is directionally disabled

**Publication Number:** US5564211

**Abstract:** A firearm, such as a shotgun, is normally-enabled at all times for firing. An authorized user, such as a police officer, wears a transmitter that transmits signal energy in all directions. The transmitter may be worn by the authorized user on the user's person. The transmitter transmits a "disable" system that is received by a corresponding signal receiver built into the firearm only when the muzzle of the firearm is pointed in the direction of the authorized user. That is, the receiver has a narrow angular spatial range of signal reception. In this way, if the firearm is taken away from the authorized user, or the authorized user accidentally points the firearm at his/her person, then the firearm will be disabled automatically from firing by reception of the "disable" signal sent by the transmitter worn by the authorized user.

**Method for Identification:** Electronic Transponder, Body-Worn Device

**Assignee(s):** O. F. MOSSBERG & SONS, INC.

**Application (Year/Month):** 1995-07

**Publication (Year/Month):** 1996-10

**Legal Status:** Expired

**Learn More:** <https://patents.google.com/patent/US5564211A/en>

## Firearm having an intelligent controller

Publication Number: US6321478

**Abstract:** The present invention is directed to a firearm adapted to utilize an ammunition round having a non-impact primer adjacent one end thereof. The firearm includes a frame, a movable slide assembly, a power source, and a control module for selectively permitting communication of an ignition signal from the power source to the non-impact primer. The firearm further includes an ammunition chamber formed in the movable slide for releasably housing the ammunition round, as well as including an electrically conductive ignition probe housed within the movable slide for permitting communication of the ignition signal from the power source to the non-impact primer when the ammunition round is disposed in the chamber. A sensor assembly is utilized to generate a status signal to the control module indicative of an operational mode of the firearm. The control module permits generation of the ignition signal in response to an actuation of the trigger assembly only when the sensor assembly indicates that the firearm is in a firing mode.

**Method for Identification:** Electronic Transponder, Personal Identification Card, or Finger Print, Voice Control, or Palm Print

**Assignee(s):** SMITH & WESSON CORP.

**Application (Year/Month):** 1998-12

**Publication (Year/Month):** 2001-11

**Legal Status:** Expired- Fee Related

**Learn More:** <https://patents.google.com/patent/US7155855B2/en>

## Public network weapon system and method

Publication Number: US7159500

**Abstract:** Embodiments of the invention enable the dynamic discovery and operation of at least one over a public network such as the Internet. The system may comprise dynamically discoverable sensors such as a video camera or video surveillance system or any other type of sensor capable of detecting a target. Sensors may be collocated or distantly located from weapons and there may be a different number of weapons and sensors in a configuration. An operator may control more than one weapon at a time and may obtain sensor data output from more than one sensor at a time. One or more weapons may be aimed simultaneously by performing a user gesture such as a mouse click or game controller button selection with respect to a particular sensor data output. An operator user interface may be cloned onto another computer for real-time supervision or for later analysis or training for example.

**Method for Identification:** Electronic Transponder

**Assignee(s):** THE TELEROBOTICS CORPORATION

**Application (Year/Month):** 2004-10

**Publication (Year/Month):** 2007-01

**Legal Status:** Expired- Fee Related

**Learn More:** <https://patents.google.com/patent/US7159500B2/en>

## FIREARM SAFETY SYSTEM

Publication Number: US20140259841A1

**Abstract:** A firearm safety system and method is described herein. The system may include a tracking system, a smart firearm and/or a smart magazine, and a smart tracking unit. The tracking system is in communication with satellites that monitor specific locations, a smart firearm and a portable electronic device. The tracking system includes an internal geographical database of specific monitored locations. The smart firearm includes a microprocessor and a receiver. The motor operates in response to a signal received, which may indicate that the firearm is approaching a no gun safety zone, whereby the signal causes the microprocessor to operate the automatic safety lock to prevent the apparatus from operating. The receiver monitors signals and receives location data from the satellites. The method of operating a smart firearm includes receiving a signal at the at least one receiver and responding to the signal by locking the automatic safety lock.

**Method for Identification:** Electronic Transponder, Smart Tracking, GPS

**Assignee(s):** CARLSON, TREVOR EDWIN

**Application (Year/Month):** 2013-03

**Publication (Year/Month):** 2014-09

**Legal Status:** Granted

**Learn More:** <https://patents.google.com/patent/US20140259841A1/en>

## Video recording device for a targetable weapon

Publication Number: EP0985899B1

**Abstract:** A compact video image recording device which is mountable to a gun and useful for recording video images before and after the firing of the gun. The recording device includes a camera comprising a lens and a video image sensor. The video recording device is mounted on the gun such that the viewing area of the camera includes the target area of the gun. The video image sensor generates an electronic signal representative of a video image impinging the respective sensor. The output of the image sensor is processed and generally employed to produce frame data which are successively stored in successive frame locations of a semiconductor memory organized as a circular buffer memory while the video recording device is in an active state. Upon the firing of the gun, additional frames are stored in the buffer memory for a short period of time and a portion of the buffer memory is employed to preserve a video record of the shooting both before and after the event. Additional frames are successively stored in the unused portion of the buffer memory. In the event of a further firing of the gun, an additional portion of the buffer memory is dedicated to preserving the image data associated with subsequent firing incident. This process may be repeated until the buffer memory is full in the event the gun is repeatedly fired. A video record is thus generated which documents the circumstances preceding and following the firing of the gun.

**Method for Identification:** Video

**Assignee(s):** MITSUBISHI DENKI KABUSHIKI KAISHA

**Application (Year/Month):** 1999-03

**Publication (Year/Month):** 2004-02

**Legal Status:** Expired

Learn More: <https://patents.google.com/patent/EP0985899B1/en>

## Sensor array for unauthorized user prevention device

Publication Number: US6817130

**Abstract:** Improvements in the sensor array are disclosed for an array used in a module for preventing unauthorized use of a firearm or other device. The module to which the invention is applicable of the type including a plurality of pressure sensors for sensing a user's handgrip on the device; comparator means for comparing a pressure signature profile compiled from an output from said pressure sensors with at least one pressure signature profile in storage; and means for preventing operation of the device when the compared profiles do not match. The improved sensor array comprises a first set of spaced electrically conductive lines formed on the gripping surface; a thin layer of (preferably) piezoresistive material overlying the first set of conductive lines; and a second set of spaced electrically conductive lines formed over the piezoresistive layer. The lines of the second set are orthogonal to the lines of the first set, to establish a grid-like pattern of conductive lines sandwiching the piezoresistive layer. The projected intersections between the lines of the first and second sets (i.e., the grid crossing points) thereby define with the intervening portion of the piezoresistive layer, an array of sensors which are responsive to pressure applied against the gripping surface by a user of the device. Such pressure changes the electrical conductivity in the path including the intersecting lines and intervening piezoresistive material. Signal outputs from the electrical paths including the array of sensors serve to define the pressure signal profile.

**Method for Identification:** Electronic Transponder, Personal Identification Card, or Finger Print, Voice Control, or Palm Print

**Assignee(s):** NEW JERSEY INSTITUTE OF TECHNOLOGY

**Application (Year/Month):** 2003-06

**Publication (Year/Month):** 2004-11

**Legal Status:** Active

Learn More: <https://patents.google.com/patent/US6817130B2/en>

## Intelligent weapon

Publication Number: US6823621

**Abstract:** A system for monitoring use of a weapon. The system includes a monitoring station and at least one weapon in which the weapon fires a projectile. The weapon includes a tracking device, in which the tracking device receives navigational data, and a transceiver. The transceiver transmits at least the navigational data to the monitoring station. The weapon can further include a biometric identifier for identifying a user and a trigger mechanism in which the biometric identifier can enable the trigger mechanism only when the biometric identifier identifies an authorized user. In one arrangement, the tracking device can be a global positioning system receiver that can receive navigational data from a plurality of global positioning system satellites..

**Method for Identification:** Electronic Transponder, GPS, Personal Identification Card, or Finger Print, Voice Control, or Palm Print

**Assignee(s):** GOTFRIED BRADLEY L.

Application (Year/Month): 2002-11

Publication (Year/Month): 2004-11

Legal Status: Active

Learn More: <https://patents.google.com/patent/US6823621B2/en>

## EVIDENCE COLLECTING AND RECORDING APPARATUS FOR A GUN

Publication Number: US20140215885A1

**Abstract:** A battery-powered electronic evidence-collecting device on the gun that transmits to a smartphone or other device carried by the peace officer for recording and forwarding the evidence to a central station. The evidence collecting and recording apparatus is activated by the removal of the gun from its holster.

**Method for Identification:** Electronic Transponder, Holster, GPS, and mobile phone

**Assignee(s):** SULLIVAN, KEVIN MICHAEL | MILDE, KARL F.

Application (Year/Month): 2013-04

Publication (Year/Month): 2007-012014-08

Legal Status: Granted

Learn More: <https://patents.google.com/patent/US20140215885A1/en>

## System and methods for firearm safety enhancement

Publication Number: US9115944

**Abstract:** The present invention relates to system and methods for providing enhanced firearm safety by utilizing an electronic firearm locking device present in the firearm, in communication with a mobile application of a wireless mobile communication device and a remote firearm management server that provides five levels of safety for selective and dynamic enabling and disabling of the firearm based on real time situations along with several value added features.

**Method for Identification:** Electronic Transponder

**Assignee(s):** ARIF, ADEEL | MISRA, ABHISHEK

Application (Year/Month): 2014-03

Publication (Year/Month): 2015-08

Legal Status: Active

Learn More: <https://patents.google.com/patent/US9115944B2/en>

## Safety device for weapons and method for securing weapons provided with a safety device

Publication Number: US7703229

**Abstract:** Safety device for a hand-held weapon comprising a transponder for authenticating at least one authorized weapon user carrying or wearing the Transponder or for authenticating an allowed area for using the weapon. The transponder is adapted to emit a wireless preferably cryptified authenticating signal. The safety device further comprises a safety component for a grip of the weapon which is adapted to be necessarily activated by a hand of the user when the hand is holding the grip of the weapon and which upon activation emits a wireless request signal. The transponder is adapted to emit the authenticating signal upon receipt of the request signal from the safety component. The safety means receives and processes the authenticating signal from the transponder and permits firing of the weapon by the user upon receipt of an authenticating signal from the transponder authenticating an authorized user.

**Method for Identification:** Electronic Transponder

**Assignee(s):** ARMATIX GMBH

**Application (Year/Month):** 2003-11

**Publication (Year/Month):** 2010-04

**Legal Status:** Active

**Learn More:** <https://patents.google.com/patent/US7703229B2/en>

## Firearm safety system

**Publication Number:** US8966797

**Abstract:** A firearm safety system and method is described herein. The system may include a tracking system, a smart firearm and/or a smart magazine, and a smart tracking unit. The tracking system is in communication with satellites that monitor specific locations, a smart firearm and a portable electronic device. The tracking system includes an internal geographical database of specific monitored locations. The smart firearm includes a microprocessor and a receiver. The motor operates in response to a signal received, which may indicate that the firearm is approaching a no gun safety zone, whereby the signal causes the microprocessor to operate the automatic safety lock to prevent the apparatus from operating. The receiver monitors signals and receives location data from the satellites. The method of operating a smart firearm includes receiving a signal at the at least one receiver and responding to the signal by locking the automatic safety lock.

**Method for Identification:** Electronic Transponder, GPS, Personal Identification Card, or Finger Print, Voice Control, or Palm Print

**Assignee(s):** BLACK BART, INC.

**Application (Year/Month):** 2013-03

**Publication (Year/Month):** 2015-03

**Legal Status:** Active

**Learn More:** <https://patents.google.com/patent/US8966797B2/en>

## Authorization module for activating a firearm and method of using same

**Publication Number:** US6357156

**Abstract:** An authorization module is provided for activating an associated portable or hand-held electronic device such as a firearm. The authorization module includes a housing defining a cavity, and an electrical interface for communicating with the electronic firearm. The housing is preferably generally in the shape of a firearm magazine for insertion into a magazine well of the electronic firearm. A fingerprint sensor is supported on and faces outwardly of the housing for generating a fingerprint signal indicative of a fingerprint pattern detected by the fingerprint sensor. A fingerprint identification circuit is disposed within the cavity of the housing and communicates with the fingerprint sensor for receiving the fingerprint signal and for comparing the sensed fingerprint pattern with an authorized user's fingerprint pattern stored in the identification circuit. The identification circuit communicates with the electrical interface for transmitting an authorization signal to activate the firearm if the sensed fingerprint pattern substantially matches the authorized user's fingerprint pattern. The module is preferably powered by DC batteries disposed within the housing.

**Method for Identification:** Electronic Transponder, Personal Identification Card, or Finger Print, Voice Control, or Palm Print

**Assignee(s):** SMITH & WESSON CORP.

**Application (Year/Month):** 2000-07

**Publication (Year/Month):** 2002-03

**Legal Status:** Expired- Fee Related

**Learn More:** <https://patents.google.com/patent/US6357156B1/en>

## SAFETY DEVICE FOR WEAPONS AND METHOD FOR SECURING WEAPONS PROVIDED WITH A SAFETY DEVICE

**Publication Number:** EP1685358A1

**Abstract:** Safety device for a hand-held weapon (1) comprising a transponder (9) for authenticating at least one authorized weapon user carrying or wearing the Transponder (9) or for authenticating an allowed area for using the weapon (1). The transponder (9) is adapted to emit a wireless preferably cryptified authenticating signal. The Safety device further comprises a safety means (2) for a grip of the weapon (1) which is adapted to be necessarily activated by a hand of the user when the hand is holding the grip (7) of the weapon (1) and which upon activation emits a wireless request signal. The transponder (9) is adapted to emit the authenticating signal upon receipt of the request signal from the safety means (2). The safety means (2) receives and processes the authenticating signal from the transponder (9) and permits firing of the weapon (1) by the user upon receipt of an authenticating signal from the transponder (9) authenticating an authorized user.

**Method for Identification:** Electronic Transponder

**Assignee(s):** ARMATIX GMBH

**Application (Year/Month):** 2003-11

**Publication (Year/Month):** 2006-08

**Legal Status:** Active

**Learn More:** <https://patents.google.com/patent/EP1685358A1/en>

## Firearm with identification safety system

**Publication Number:** US5915936

**Abstract:** A firearm with an identification safety system for preventing use by an unauthorized user. The firearm includes a barrel for discharging the firearm therethrough, a butt section connected to the barrel, a trigger connected between the barrel and butt section for initiating discharge of the firearm and a safety switch operable between a first position preventing discharge of the firearm and a second position allowing discharge of the firearm. A pressure sensor is positioned in the butt section for sensing grasping of the butt section by a palm of a user and a scanning sensor is connected for scanning a palm print of the palm of the user and generating a data signal representative of the scanned palm print upon sensing grasping of the butt section by the pressure sensor. A memory unit stores data signals representative of palm prints of authorized users and a microprocessor is connected to both the scanning sensor and the memory unit for receiving the data signal from the scanning sensor and comparing the received data signal to the data signals stored in the memory unit. The microprocessor controls the safety switch to operate in the first position upon determining the received data signal does not match any of the data signals stored in the memory unit and controls the safety switch to operate in the second position upon determining the received data signal matches one of the data signals stored in the memory unit.

**Method for Identification:** Electronic Transponder, palm and finger print

**Assignee(s):** BRENTZEL; JOHN CHARLES

**Application (Year/Month):** 1997-12

**Publication (Year/Month):** 1999-06

**Legal Status:** Expired-Fee Related

**Learn More:** <https://patents.google.com/patent/US5915936A/en>

## Firearms protected from unauthorized use

**Publication Number:** US7155855

**Abstract:** Firearms protected from unauthorized use. A disclosed firearm comprises a housing having a handle; a safety located in the housing to selectively prevent firing; and a module removably attachable to the handle and containing an electronic identification device to identify an authorized user. The electronic identification device controls the safety to prevent firing by unauthorized persons and to permit firing by the authorized user.

**Method for Identification:** Electronic Transponder

**Assignee(s):** HECKLER & KOCH GMBH

**Application (Year/Month):** 2004-01

**Publication (Year/Month):** 2007-01

**Legal Status:** Active

**Learn More:** <https://patents.google.com/patent/US7155855B2/en>

## Hand gun with remotely controlled safety system

**Publication Number:** US5603180

**Abstract:** A safety system for a hand gun includes an electrode exposed through the handle. A high voltage source inside the handle connects to the electrode through a switch controlled by a receiver activated by a transmitter carried by an authorized person. If the authorized person loses possession of the hand gun, the transmitter is actuated thereby energizing the electrodes. If an unauthorized person is holding the hand gun within range of the transmitter, a high voltage shock is delivered through the electrodes. The unauthorized person thereupon drops the hand gun and it is no longer a threat to the authorized person.

**Method for Identification:** Electronic Transponder

**Assignee(s):** HOUZE; WADE L.

**Application (Year/Month):** 1995-09

**Publication (Year/Month):** 1997-02

**Legal Status:** Expired- Fee Related

**Learn More:** <https://patents.google.com/patent/US5603180A/en>

## SECURITY SYSTEM

**Publication Number:** US20130318847A1

**Abstract:** A remote valuable and/or gun monitoring system and method are disclosed. A module incorporating a motion sensor is interconnected to a valuable or gun. The motion sensor generates a motion signal if movement is detected. The motion signal can be passed to a communication device associated with the valuable or gun owner by a network. Remote locking/unlocking of a trigger lock provided as part of the module interconnected to a gun can also be supported.

**Method for Identification:** Electronic Transponder, Trigger Block

**Assignee(s):** SENSOR SYSTEMS, LLC

**Application (Year/Month):** 2013-05

**Publication (Year/Month):** 2013-12

**Legal Status:** Granted

**Learn More:** <https://patents.google.com/patent/US20130318847A1/en>

## Secure smartphone-operated locking device

**Publication Number:** US9222740

**Abstract:** A battery-powered trigger-locking device, which is configured to be disposed on a gun with a trigger for firing, includes a data receiver, a data memory and a logic device for determining whether data received by the receiver is the same, or substantially the same, as data stored in the memory. If a data match is indicated, the logic device causes an electromagnetic device to move a trigger-locking member to an unlocked position, permitting the gun to be fired. A separate electronic gun key is provided to transmit gun unlock data to the data receiver of the trigger-locking device. This gun unlock data may be a password, a long pseudo-random number or biologic data identifying the gun owner or some other person who is licensed or otherwise authorized to fire the gun.

**Method for Identification:** Electronic Transponder, Trigger Block

**Assignee(s):** MILDE, JR., KARL F. | MATOS, JEFFREY A.

Application (Year/Month): 2014-10

Publication (Year/Month): 2015-12

Legal Status: Active

Learn More: <https://patents.google.com/patent/US9222740B1/en>

## Retrofit safety means for weapons and method for securing weapons

Publication Number: EP1914502B1

**Abstract:** The present invention relates to a safety means for weapons (42). The safety means comprises an electronic control unit (150) for the authentication of an authorized user and the control of a safety mechanism. The safety mechanism mechanically engages with at least one mechanical part of the ignition chain so that said ignition chain is interrupted and firing is prevented. The safety mechanism comprises an actuator (160) for releasing said engagement of the safety mechanism in case the electronic control unit identifies an authentication signal. The safety means according to the present invention is provided in a retrofit main component part (101) of a weapon (42), which replaces a corresponding original main component part (1) of the weapon (42). The safety means is preferably controllable by a transponder (100).

**Method for Identification:** Electronic Transponder

**Assignee(s):** ARMATIX GMBH

Application (Year/Month): 2006-10

Publication (Year/Month): 2011-09

Legal Status: Active

Learn More: <https://patents.google.com/patent/EP1914502B1/en>

## SAFETY HOLSTER FOR PREVENTING ACCESS TO A FIREARM BY UNAUTHORIZED USERS

Publication Number: WO2002082001A1

**Abstract:** A safety holster (10) for a firearm (30), including a pivotally mounted retaining member (50) for engaging the trigger guard (36) of the firearm (30) and preventing withdrawal of the firearm (30) from the holster (10) by anyone other than an authorized user of the firearm (30). The holster (10) includes a fingerprint sensor (100) for scanning fingerprint information of a perspective user of the firearm (30), and a processor (112) for comparing the scanned fingerprint information with stored fingerprint information of an authorized user and releasing the retaining member (50) only if the scanned fingerprint information matches that of the authorized user.

**Method for Identification:** Electronic Transponder, Palm and Finger Print, Holster

**Assignee(s):** SAFETY FIRST DEVICES INC.

Application (Year/Month): 2001-04

Publication (Year/Month): 2002-10

Legal Status: Expired- Fee Related

Learn More: <https://patents.google.com/patent/WO2002082001A1/en>

## Magnetic tag firearm safety enhancement system with grip switch

Publication Number: US6282829

**Abstract:** A firearm safety enhancement system is provided for enabling use of a firearm only by an authorized individual. At least one electrically activated preventer is provided having a first position for preventing use of firearm and having a second position for enabling use of the firearm. An electrical activation circuit is operatively connected to the preventer to move the preventer between the first and second positions. A portable power supply is carried in said firearm and is coupled to the activation circuit for providing power. A power signal transmitter is operatively connected to the power supply for transmitting an electromagnetic power signal at a regular frequency. A passive identification tag is mounted to a personal adornment to be carried or worn by an individual and is preprogrammed with an authorized identification code preselected from a large number of available identification codes. The passive identification tag is responsive to the power signal to impose a coded return signal on the power signal. The return coded signal is representative of the preprogrammed authorized identification code so that the power signal acts as a carrier of the imposed coded return signal. A reader circuit is connected to the power signal transmitter and to the electrical activation circuit. The reader circuit is responsive only to an authorized identification code to activate the electrical activation circuit to provide power from the portable power supply to move the at least one preventer between the first preventing position and the second unblocked position for enabling use of the firearm.

**Method for Identification:** Electronic Transponder. Passive Tag

**Assignee(s):** KINION KEVIN F. | KLUWE GEORGE E. | MOSSBERG JONATHAN E. | SAFFORD ROBERT

**Application (Year/Month):** 1999-12

**Publication (Year/Month):** 2001-09

**Legal Status:** Active

Learn More: <https://patents.google.com/patent/US6282829B1/en>

## Biometric thumbprint lock apparatus and method

Publication Number: US20080134556A1

**Abstract:** A biometrically keyed thumbprint lock apparatus is disclosed. In one embodiment the lock apparatus serves as a safety device on a gun or rifle, the lock apparatus disabling the gun and preventing its use. Another embodiment providing a thumbprint lock having a 'J' shaped lock bar, replacing conventional key and combination locks.

**Method for Identification:** Electronic Transponder, Finger Print, Voice Control, or Palm Print

**Assignee(s):** REMELIN AMBER LEE

**Application (Year/Month):** 2006-10

**Publication (Year/Month):** 2008-06

**Legal Status:** Pending

Learn More: <https://patents.google.com/patent/US20080134556A1/en>

## Safety holster

Publication Number: US4076156

**Abstract:** A safety holster adapted to receive a gun and prevent removal of the gun from the safety holster by unauthorized personnel or through inadvertent movement by the user. The safety holster includes a tubular insert section within which the gun is inserted. A gun securement mechanism for constraining the gun within the tubular insert section provides for a strap element which passes from a frontal to a rear wall of the tubular insert section. The strap member passes over and contiguously contacts the hammer of a gun which is inserted within the safety holster. The strap member is positioned to intersect the path of removal of the gun from the holster. Additionally, the strap member is fixedly secured to a frontal wall of the tubular insert member but may be rotational with respect thereto. The strap member is releasably fastened to the rear wall of the tubular insert section through a pair of snap fasteners. The strap member contiguous to the rear wall of the tubular insert member extends beyond a boundary contour to provide a tab element through which the user may with a minimum of motion, releasably detach the snap fasteners. Further, the tab member section of the strap includes a rigid plate in order to prevent flexing of the strap member in the vicinity of the snap fasteners.

**Method for Identification:** Holster

**Assignee(s):** KATZ MENASHA EMANUEL

**Application (Year/Month):** 1976-03

**Publication (Year/Month):** 1978-02

**Legal Status:** Expired

**Learn More:** <https://patents.google.com/patent/US4076156A/en>

## Method and apparatus for shooting using biometric recognition

Publication Number: US6343140

**Abstract:** An apparatus for shooting. The apparatus includes a gun. The apparatus includes a controller connected to the gun which controls whether the gun can fire. The apparatus includes a mechanism for determining a present biometric signature of a shooter who desires to fire the gun. The determining mechanism is in communication with the controller. The controller only allows the gun to fire if the present biometric signature of the shooter is recognized by the controller. A method for firing a gun. The method includes the steps of gripping a handle of a gun by a shooter. Then there is the step of recognizing a present biometric signature of the shooter. Next there is the step of releasing a trigger of the gun so the gun can fire as long as the biometric signature of the shooter is recognized.

**Method for Identification:** Electronic Transponder, Voice Control, Finger and Palm Print Scanner

**Assignee(s):** QUID TECHNOLOGIES LLC

**Application (Year/Month):** 1998-10

**Publication (Year/Month):** 2002-01

**Legal Status:** Expired- Fee Related

**Learn More:** <https://patents.google.com/patent/US6343140B1/en>

## Firearm authorization system with piezo-electric disabler

Publication Number: US7356959

**Abstract:** An authorization system for a firearm ( 10 ) includes an authorizing device ( 32 ) worn by the authorized user, and a firearm ( 10 ) with a fire control system, a computer controller ( 28 ), and a piezo-electric disabler ( 60 ). The computer controller ( 28 ) communicates with the authorizing device ( 32 ), and if no authorizing signal is received from the authorizing device, sends an electric output signal to the disabler ( 60 ) to prevent the fire control system from allowing the firearm to fire. The disabler, upon application of the electrical signal from the computer controller, cams the rearward moving trigger bar ( 52 ) of the fire control system clear of the hammer link ( 54 ) to disrupt the fire control system. Consequently, the firearm ( 10 ) will not fire.

**Method for Identification:** Electronic Transponder

**Assignee(s):** FN HERSTAL SA

**Application (Year/Month):** 2005-11

**Publication (Year/Month):** 2008-04

**Legal Status:** Active

**Learn More:** <https://patents.google.com/patent/US7356959B2/en>

## FIREARM AUTHORIZATION SYSTEM WITH PIEZO-ELECTRIC DISABLER

Publication Number: EP1636536A2

**Abstract:** An authorization system for a firearm (10) includes an authorizing device (32) worn by the authorized user, and a firearm (10) with a fire control system, a computer controller (28), and a piezo-electric disabler (60). The computer controller (28) communicates with the authorizing device (32), and, if no authorizing signal is received from the authorizing device, sends an electric output signal to the disabler (60) to prevent the fire control system from allowing the firearm to fire. The disabler, upon application of the electrical signal from the computer controller, cams the rearward-moving trigger bar (52) of the fire control system clear of the hammer link (54) to disrupt the fire control system. Consequently, the firearm (10) will not fire.

**Method for Identification:** Electronic Transponder

**Assignee(s):** FN HERSTAL, SOCIÉTÉ ANONYME

**Application (Year/Month):** 2004-06

**Publication (Year/Month):** 2006-03

**Legal Status:** Active

**Learn More:** <https://patents.google.com/patent/EP1636536A2/en>

## Security apparatus for a firearm

Publication Number: US6286242

**Abstract:** The present invention is directed to a security apparatus for a firearm including a frame, a power source, a firing chamber adapted to receive a round of ammunition having a primer oriented adjacent a distal end thereof, and a trigger assembly for selectively initiating communication between an ignition system and the primer. The security apparatus further comprises an authorization device for selectively generating a pass signal indicating that an operator of the firearm is an authorized operator, and a firearm sensor for selectively generating a control parameter signal indicating an operational mode of the firearm. An electronically programmable locking device receives the authorization signal and the control parameter signal, and permits communication between the ignition system and the primer only if the authorization signal generates the pass signal and the control parameter signal indicates the firearm is in a standby mode.

**Method for Identification:** Electronic Transponder, Voice Control, Finger and Palm Print Scanner

**Assignee(s):** SMITH & WESSON CORP.

**Application (Year/Month):** 2000-06

**Publication (Year/Month):** 2001-09

**Legal Status:** Expired-Fee Related

**Learn More:** <https://patents.google.com/patent/US6286242B1/en>

## A FIREARM HAVING AN INTELLIGENT CONTROLLER

**Publication Number:** WO2000036359A3

**Abstract:** A firearm having a programmable electronic control (28) for firing electrically ignitable ammunition (17) has a user authorization apparatus (34) and the capability to receive inputs from a plurality of sensors including a magazine presence sensor, a Round-In-Chamber sensor, grip sensors, and a battery status sensor. The electronic control (28) of the present invention has a programmable microcontroller (30), a power supply system using batteries (24), an ignition system that converts low level voltage from the batteries (24) to the required voltage to fire the electrically ignitable ammunition (17), a user authorization apparatus, and an options interface adaptable to receive inputs from system sensors. The firearm of the present invention is programmed to enable firing only if safe and authorized firing conditions are determined. The electronic control (28) can be implemented in either a pistol (1) having an ammunition magazine (23), a multichambered handgun or a revolver.

**Method for Identification:** Electronic Transponder, Voice Control, Finger and Palm Print Scanner

**Assignee(s):** SMITH & WESSON CORP.

**Application (Year/Month):** 1999-11

**Publication (Year/Month):** 2001-10

**Legal Status:** Withdrawn

**Learn More:** <https://patents.google.com/patent/WO2000036359A3/en>

## METHOD AND APPARATUS FOR SHOOTING USING BIOMETRIC RECOGNITION

**Publication Number:** WO2000026848A1

**Abstract:** An apparatus for shooting (300). The apparatus includes a gun (302). The apparatus includes a controller connected to the gun which controls whether the gun can fire (304). The apparatus includes a mechanism for determining a present biometric signature of a shooter who desires to fire the gun. The determining mechanism is in communication with the controller. The controller only allows the gun to fire if the present biometric signature of the shooter is recognized by the controller. A method for firing a gun. The method includes the steps of gripping a handle (308) of a gun by a shooter. Then there is the step of recognizing a present biometric signature of the shooter. Next there is the step of releasing a trigger of the gun so the gun can fire as long as the biometric signature of the shooter is recognized.

**Method for Identification:** Electronic Transponder, Voice Control, Finger and Palm Print Scanner

**Assignee(s):** QUID TECHNOLOGIES, LLC | BROOKS, JULIANA H. J.

**Application (Year/Month):** 1999-10

**Publication (Year/Month):** 2000-05

**Legal Status:** No Data

**Learn More:** <https://patents.google.com/patent/WO2000026848A1/en>

## Firearm safety system with implanted computer chip

**Publication Number:** US6481140

**Abstract:** A firearm safety system for the prevention of undesired or unauthorized discharge of a firearm by a person other than an authorized person. The safety system is made up of a computer chip which is implanted into the authorized user's anatomy for verification of the user. The information from the computer chip is received by a sensor connected to a firearm and the information processed by a processor. If the information received from the computer chip matches that of an authorized user, the firearm can be discharged by the authorized user.

**Method for Identification:** Electronic Transponder, Implanted Computer Sensor

**Assignee(s):** MARSHALL WILLIAM

**Application (Year/Month):** 2000-11

**Publication (Year/Month):** 2002-11

**Legal Status:** Expired- Fee Related

**Learn More:** <https://patents.google.com/patent/US6481140B1/en>

## Unauthorized user prevention device and method

**Publication Number:** US20030133598A1

**Abstract:** An unauthorized user prevention device and method prevents unauthorized users from operating a devices such as firearms or other types of weapons, and can also prevent access as an anti-theft device for vehicles and doors to buildings. A users initially grips a handle containing pressure sensors, and a pressure signature profile is stored that is based on hand position of the user's handgrip on the particular device as indicated by a change in pressure, pressure as a function of position on the particular device; and pressure as a function of time. A comparator compiles the pressure signature profile and compares it with profiles is storage to determined whether a match exists. Upon finding a

match, a control unit releases an interlocking unit to enable the user to operate the device because he/she is authorized.

**Method for Identification:** Electronic Transponder, Voice Control, Finger and Palm Print Scanner, and Trigger Block

**Assignee(s):** RECCE MICHAEL

**Application (Year/Month):** 2003-02

**Publication (Year/Month):** 2003-07

**Legal Status:** Granted

**Learn More:** <https://patents.google.com/patent/US20030133598A1/en>

## Gun security and safety system

**Publication Number:** US5459957

**Abstract:** A security and safety mechanism for a firearm including a disabling unit that interacts with a firearm grip safety in order to enable/disable the firearm. The firearm will remain in a disabled state unless a verification means determines that a firearm user is an authorized firearm user. The security and safety mechanism utilizes voice recognition technology in order to ascertain whether a firearm user is an authorized firearm user.

**Method for Identification:** Electronic Transponder, Voice Control, Finger and Palm Print Scanner

**Assignee(s):** WINER; GUY T.

**Application (Year/Month):** 1994-06

**Publication (Year/Month):** 1995-10

**Legal Status:** Expired- Fee Related

**Learn More:** <https://patents.google.com/patent/US5459957A/en>

## Weapon safeguarding system and process

**Publication Number:** US6678984

**Abstract:** The present invention relates to a weapon safeguarding system with a first contact-sensitive user interface for receiving use data characterizing a user. In this connection the first contact-sensitive use interface is arranged in a contact region of a weapon which is contacted by the user with a view to firing a shot. The weapon safeguarding system further comprises a control device which comprises an input unit for receiving the user data, a computer unit for verifying the user data and an output unit. In the case of a successful verification of the user data, which indicates that the user is a user who is authorized for use, the output unit outputs a release signal in order to release a discharging mechanism of the weapon. In order to provide the user data to the first contact-sensitive use interface, the weapon safeguarding system comprises a user terminal which contains the user data and a body transmission device connected to the user for the purpose of transmitting the user data to the first contact-sensitive use interface in the event of contact therewith.

**Method for Identification:** Electronic Transponder, Voice Control, Finger and Palm Print Scanner

**Assignee(s):** R2 AG

Application (Year/Month): 2000-09

Publication (Year/Month): 2004-01

Legal Status: Expired- Fee Related

Learn More: <https://patents.google.com/patent/US6678984B1/en>

## Unauthorized user prevention device and metuse

Publication Number: US6563940

**Abstract:** An unauthorized user prevention device and method prevents unauthorized users from operating a devices such as firearms or other types of weapons, and can also prevent access as an anti-theft device for vehicles and doors to buildings. A users initially grips a handle containing pressure sensors, and a pressure signature profile is stored that is based on hand position of the user's handgrip on the particular device as indicated by a change in pressure, pressure as a function of position on the particular device; and pressure as a function of time. A comparator compiles the pressure signature profile and compares it with profiles is storage to determined whether a match exists. Upon finding a match, a control unit releases an interlocking unit to enable the user to operate the device because he/she is authorized.

**Method for Identification:** Pressure Sensor, Trigger Block

**Assignee(s):** NEW JERSEY INSTITUTE OF TECHNOLOGY

Application (Year/Month): 2001-05

Publication (Year/Month): 2003-05

Legal Status: Active

Learn More: <https://patents.google.com/patent/US6563940B2/en>

## SECURE SMARTPHONE-OPERATED GUN TRIGGER LOCK

Publication Number: US20150184965A1

**Abstract:** A battery-powered trigger-locking device, which is configured to be disposed on a gun with a trigger for firing, includes a data receiver, a data memory and a logic device for determining whether data received by the receiver is the same, or substantially the same, as data stored in the memory. If a data match is indicated, the logic device causes an electromagnetic device to move a trigger-locking member to an unlocked position, permitting the gun to be fired. A separate electronic gun key is provided to transmit gun unlock data to the data receiver of the trigger-locking device. This gun unlock data may be a password, a long pseudo-random number or biologic data identifying the gun owner or some other person who is licensed or otherwise authorized to fire the gun.

**Method for Identification:** Trigger Block

**Assignee(s):** MILDE, JR., KARL F. | MATOS, JEFFREY A.

Application (Year/Month): 2015-03

Publication (Year/Month): 2015-07

Legal Status: Pending

Learn More: <https://patents.google.com/patent/US20150184965A1/en>

## Gun storage and rapid removal mount

Publication Number: US5438787

**Abstract:** The gun storage and rapid removal mount of this invention is for securely retaining a shotgun or the like against unauthorized removal with the mount providing for rapid removal by authorized persons. It comprises a trigger guard cup and a forward lock clamp. The lock clamp engages the barrel and a magazine tube just forward of the shotgun receiver to prevent forward motion of the shotgun in the mount. The trigger guard cup prevents rearward motion. The lock clamp is both lock- and spring-retained. When its lock is released, the gun can be rotated out of the clamp against spring force. The spring also permits reinsertion of the shotgun into position against the spring force.

**Method for Identification:** Combination Lock and Trigger Block

**Assignee(s):** PRO-TECH DESIGN & MANUFACTURING, INC.

**Application (Year/Month):** 1994-10

**Publication (Year/Month):** 1995-08

**Legal Status:** Expired-Fee Related

**Learn More:** <https://patents.google.com/patent/US5438787A/en>

## Unauthorized user prevention device and method

Publication Number: US6763126

**Abstract:** An unauthorized user prevention device and method prevents unauthorized users from operating a devices such as firearms or other types of weapons, and can also prevent access as an anti-theft device for vehicles and doors to vehicles or buildings. A users initially grips a handle containing pressure sensors, and a pressure signature profile is stored that is based on hand position of the user's handgrip on the particular device as indicated by a change in pressure, pressure as a function of position on the particular device; and pressure as a function of time. A comparator compiles the pressure signature profile and compares it with profiles in storage to determined whether a match exists. Upon finding a match, a control unit releases an interlocking unit to enable the user to operate the device because he/she is authorized.

**Method for Identification:** Pressure Sensor, Trigger Block

**Assignee(s):** NEW JERSEY INSTITUTE OF TECHNOLOGY

**Application (Year/Month):** 2003-02

**Publication (Year/Month):** 2004-07

**Legal Status:** Active

**Learn More:** <https://patents.google.com/patent/US6763126B2/en>

## A FIREARM HAVING AN INTELLIGENT CONTROLLER

Publication Number: EP1179171A2

**Abstract:** A firearm having a programmable electronic control (28) for firing electrically ignitable ammunition (17) has a user authorization apparatus (34) and the capability to receive inputs from a

plurality of sensors including a magazine presence sensor, a Round-In-Chamber sensor, grip sensors, and a battery status sensor. The electronic control (28) of the present invention has a programmable microcontroller (30), a power supply system using batteries (24), an ignition system that converts low level voltage from the batteries (24) to the required voltage to fire the electrically ignitable ammunition (17), a user authorization apparatus, and an options interface adaptable to receive inputs from system sensors. The firearm of the present invention is programmed to enable firing only if safe and authorized firing conditions are determined. The electronic control (28) can be implemented in either a pistol (1) having an ammunition magazine (23), a multichambered handgun or a revolver.

**Method for Identification:** Electronic Transponder, Voice Control, Finger and Palm Print Scanner

**Assignee(s):** SMITH & WESSON CORP.

**Application (Year/Month):** 1999-11

**Publication (Year/Month):** 2002-02

**Legal Status:** Withdrawn

**Learn More:** <https://patents.google.com/patent/EP1179171A2/en>

## AUTHORIZED PERSONNEL BIOMETRIC DETECTION SYSTEM PREVENTING UNAUTHORIZED USE OF AIRCRAFT AND OTHER POTENTIALLY DANGEROUS INSTRUMENTS

**Publication Number:** US20060285725A1

**Abstract:** An authorized pilot detection system and method for controlling a variety of potentially dangerous instrumentalities such as aircraft, land vehicles, amphibious vehicles and other hand-controllable equipment, is disclosed. The system with respect to aircraft includes an interlock for enabling/disabling one of a control wheel and a joystick for controlling movement of an aircraft; a biometric grip detector arranged on said one of a control and joy stick, said biometric grip detector comprising a plurality of pressure sensors for sensing a handgrip of a user on said one of a control wheel and joystick; a comparator for comparing a pressure signature profile compiled from an output from the plurality of pressure sensors with at least one pressure signature profile including: (a) hand position of the user's handgrip on said one of a control wheel and joystick as indicated by a change in pressure on at least one of the plurality of pressure sensors; (b) pressure as a function of position on the control wheel and joystick; and (c) pressure as a function of time. A control unit may disable the interlock to permit at least partial manual control of movement of the aircraft by the control wheel/joy stick when the comparator indicates that the signature profile matches at least one pressure signature profile in storage. Authorized access to other hand operated equipment such as power tools and heavy equipment are prevented according to the present invention.

**Method for Identification:** Electronic Transponder, Pressure Sensor

**Assignee(s):** RECCE MICHAEL

**Application (Year/Month):** 2003-04

**Publication (Year/Month):** 2006-12

**Legal Status:** Granted

**Learn More:** <https://patents.google.com/patent/US20060285725A1/en>

## Securing mechanisms for preventing access to a firearm by unauthorized users, and safety housings for use therewith

Publication Number: US7200965

**Abstract:** A securing mechanism for use in a holster, gun safe, base station, recharging/docking station, gun rack, or other safety housing for a firearm or other item, including one or more retaining members that engage the trigger guard, barrel, or other part of the firearm to prevent withdrawal of the firearm from the safety housing by anyone other than an authorized user of the firearm. The securing mechanism includes a biometric identification mechanism such as a fingerprint sensor for scanning fingerprint information of a prospective user of the firearm, and a processor for comparing the scanned biometric information with stored biometric information of an authorized user and releasing the retaining member only if the scanned biometric information matches that of the authorized user.

**Method for Identification:** Electronic Transponder, Trigger Block, Holster, Finger and Palm Print Scanner

**Assignee(s):** CHINN ROBERT C | FLETCHER DAVID R | VOR KELLER ALBERT W

**Application (Year/Month):** 2005-07

**Publication (Year/Month):** 2007-04

**Legal Status:** Active

**Learn More:** <https://patents.google.com/patent/US7200965B2/en>

## Security system

Publication Number: US8819979

**Abstract:** A remote valuable and/or gun monitoring system and method are disclosed. A module incorporating a motion sensor is interconnected to a valuable or gun. The motion sensor generates a motion signal if movement is detected. The motion signal can be passed to a communication device associated with the valuable or gun owner by a network. Remote locking/unlocking of a trigger lock provided as part of the module interconnected to a gun can also be supported.

**Method for Identification:** Electronic Transponder, Motion Sensor, Remote Activated

**Assignee(s):** SENSOR SYSTEMS, LLC

**Application (Year/Month):** 2013-05

**Publication (Year/Month):** 2014-09

**Legal Status:** Active

**Learn More:** <https://patents.google.com/patent/US8819979B2/en>

## Evidence collecting and recording apparatus for a gun

Publication Number: US9217616

**Abstract:** A battery-powered electronic evidence-collecting device on the gun that transmits to a smartphone or other device carried by the peace officer for recording and forwarding the evidence to a

central station. The evidence collecting and recording apparatus is activated by the removal of the gun from its holster.

**Method for Identification:** Electronic Transponder, Smart Phone, Holster

**Assignee(s):** SULLIVAN, KEVIN MICHAEL | MILDE, JR., KARL F. | MILDE, JASON C.

**Application (Year/Month):** 2015-03

**Publication (Year/Month):** 2015-12

**Legal Status:** Active

**Learn More:** <https://patents.google.com/patent/US9217616B2/en>

## METHOD AND APPARATUS FOR WEAPON CONTROL AND AUTHORIZATION

**Publication Number:** US20150184962A1

**Abstract:** Apparatus for authorizing and de-authorizing a device such as a weapon is disclosed. The apparatus includes the electrical detection of a signal on the skin of the user, and optionally a radio signal from a central authorizing authority and the entering of a security code by the user. Upon receipt of the correct input, the weapon authorizes and is ready for use. If a loss of skin signal occurs, the weapon enters a safe state until reauthorized. Apparatus for generating the skin signal from both an ingestible and a skin-mounted apparatus are disclosed.

**Method for Identification:** Electronic Transponder, Skin Sensors

**Assignee(s):** BURDINE, ROBERT VAN

**Application (Year/Month):** 2013-12

**Publication (Year/Month):** 2015-07

**Legal Status:** Pending

**Learn More:** <https://patents.google.com/patent/US20150184962A1/en>

## Firearm with locking and unlocking apparatus

**Publication Number:** US6442880

**Abstract:** A firearm including a body, barrel, trigger, trigger guard and firing pin, including a mechanism configured to operate the firing pin, and a safety mechanism including electronic circuitry and push buttons to operate the electronic circuitry and associated timing device including automatic time delay re-locking, the firearm also having a blocker that is controlled by an electromechanical device operated by electronic circuitry to prevent movement of the mechanism.

**Method for Identification:** Electronic Transponder, Trigger Block

**Assignee(s):** ALLAN ROBERT M.

**Application (Year/Month):** 1999-07

**Publication (Year/Month):** 2002-09

**Legal Status:** Active

**Learn More:** <https://patents.google.com/patent/US6442880B1/en>

## Apparatus and method for user control of appliances

Publication Number: US6856238

**Abstract:** Apparatus (10) and a method for rendering a weapon (12) incapable of use unless authorized by a specified individual. More than one person may be authorized to use the weapon, however only one person may be authorized to use it at any one time. Each authorized person carries a badge (14) or other device which includes an rf transmitter (TAU) capable of transmitting a coded signal to a receiver (REU) installed in the weapon in response to a coded query from a unit (EU) installed in the weapon. If a properly coded transmission is received by the weapon, it becomes capable of being fired by the person who authorized its use. However, the weapon will not fire unless the person using the weapon is also standing behind the weapon. This prevents the weapon from being turned on the person authorized to use it. The apparatus stores details of the weapon's use (e.g., who, when, and where). This information is released upon receipt of an authorized code.

**Method for Identification:** Electronic Transponder, Trigger Bmeth

**Assignee(s):** MULLER J. JOSEPH | MATTHEWS F. MAURY | WOOTTON JOHN R.

**Application (Year/Month):** 2001-08

**Publication (Year/Month):** 2005-02

**Legal Status:** Expired- Fee Related

**Learn More:** <https://patents.google.com/patent/US6856238B2/en>

## BIOMETRIC QUICK RELEASE GUN LOCK

Publication Number: US20120291327A1

**Abstract:** A quick biometric gun lock has a hinge located between two sides such that the two sides open and close about the hinge and a cavity between the two sides for reception of the finger protector and trigger mechanism of a gun such that the quick biometric gun lock encloses the trigger and finger protection area. A control shaft is attached to one of the sides having teeth for closure of the gunlock and extends into a hollow area of the other side. A control device in the other side is arranged to engage the teeth of the control shaft. This control device is either an electric motor or solenoid controlled by a microcontroller. For an electric motor the integral shaft moves a toothed servo shaft that is in contact with corresponding grooves of the electric motor's integral shaft; the solenoid has an integral shaft to control the gunlock.

**Method for Identification:** Electronic Transponder, Trigger Block, Holster, Finger and Palm Print Scanner, Combination Lock

**Assignee(s):** BOUTOT, JR. MICHAEL

**Application (Year/Month):** 2011-05

**Publication (Year/Month):** 2012-11

**Legal Status:** Pending

**Learn More:** <https://patents.google.com/patent/US20120291327A1/en>

## GUN-AMMUNITION INTELLIGENT SYSTEM FOR OWNER RECOGNITION OF PORTABLE GUNS

Publication Number: US20120011756A1

**Abstract:** An intelligent gun-ammunition system for a portable gun includes a gun having a handle; an owner recognition circuit having circuitry for recognizing an authorized grip on the handle and an activating circuit for allowing operation of a firing mechanism of the gun when authorized grip is recognized; ammunition for the gun; and an ammunition circuit communicated with the owner recognition circuit for allowing the ammunition to be fired when the owner recognition circuit recognizes the authorized grip.

**Method for Identification:** Electronic Transponder, Trigger Block, Holster, Finger and Palm Print Scanner,

**Assignee(s):** SOBRINO PORTO LUIS CRISTOVAO DE MORAES | VERSOLATO ROQUE MARCELO | ALBANO DO AMARANTE JOSE CARLOS

**Application (Year/Month):** 2011-09

**Publication (Year/Month):** 2012-01

**Legal Status:** Pending

**Learn More:** <https://patents.google.com/patent/WO2002082001A1/en>

## SAFETY DEVICE OF A GUN AND METHOD FOR USING SAFETY DEVICE

Publication Number: WO2012172182A1

**Abstract:** The safety device (22) of a gun according to the invention comprises means for determining the geographical location (224) of the gun and the shooting direction (223). The safety device additionally comprises means (225) for receiving via a short range radio link from a gun user's mobile phone a safety area map related to the current location and location data of moving or fixed targets in this safety area. The safety device additionally has means (221, 229) for determining those moments, when the gun is in the shooting position. When the gun is in the shooting position the safety device determines the risk area, within which there must be no targets preventing shooting. The safety device determines the size of the safety area based on the type of gun and the shooting direction of the gun. If it is detected that there are targets preventing shooting in the determined risk area, then the safety device (22) generates a warning (227, 226) detectable with humans senses regarding this.

**Method for Identification:** Electronic Transponder, Location Detection

**Assignee(s):** SAKO LTD | KUPARINEN, KARI

**Application (Year/Month):** 2012-06

**Publication (Year/Month):** 2012-12

**Legal Status:** Active

**Learn More:** <https://patents.google.com/patent/WO2012172182A1/en>

## BIOMETRIC DETECTION SYSTEM AND METHOD PREVENTING UNAUTHORIZED USE

Publication Number: WO2003098537A1

**Abstract:** A biometric detection system and method for controlling the unauthorized use of weapons, such as handguns, aircraft, heavy machinery and potentially dangerous instruments. A biometric grip detector senses and compares a signature profile before authorization is allowed, or removes authorization by periodically verifying the authorization of the user. The biometric grip detector includes a plurality of pressure sensors for sensing a handgrip of a user on an item (520); a comparator for comparing a pressure signature profile compiled from an output from the plurality of pressure sensors with at least one pressure signature profile (540).

**Method for Identification:** Electronic Transponder, Pressure Sensor

**Assignee(s):** NEW JERSEY INSTITUTE OF TECHNOLOGY | NEW, JERSEY INSTITUTE TECHNOLOGY OF.

**Application (Year/Month):** 2002-05

**Publication (Year/Month):** 2003-11

**Legal Status:** Active

**Learn More:** <https://patents.google.com/patent/WO2003098537A1/en>

## RETROFITTED AND NEW WEAPONS WITH BIOMETRIC SENSORS FOR MULTIPLE USERS USING FLEXIBLE SEMICONDUCTORS

Publication Number: WO2009025910A3

**Abstract:** Semiconductors on a flexible substrate provide the sensing circuitry needed for personalizing a handgun grip. In one embodiment, a portion of the semiconductor structure can be applied to a surface using a technique similar to inkjet printing. The flexible semiconductor product can be applied to a sheet or mold placed over the grip, or into the injection molding of the grip itself. Alternately, the semiconductors can be initially formed and printed on a curved grip surface.

**Method for Identification:** Electronic Transponder, Finger and Palm Print Scanner,

**Assignee(s):** MCCORD, JONAS | SCHODEL, HANS

**Application (Year/Month):** 2008-05

**Publication (Year/Month):** 2009-02

**Legal Status:** Pending

**Learn More:** <https://patents.google.com/patent/WO2009025910A3/en>

## Safety device of a gun and method for using safety device

Publication Number: US9239200

**Abstract:** A safety device of a gun includes elements for determining the geographical location of the gun and the shooting direction, elements for receiving via a short range radio link from a gun user's mobile phone a safety area map related to the current location and location data of moving or fixed targets in this safety area. The safety device additionally has elements for determining those moments,

when the gun is in the shooting position. When the gun is in the shooting position the safety device determines the risk area, within which there must be no targets preventing shooting. The safety device determines the size of the safety area based on the type of gun and the shooting direction of the gun. If it is detected that there are targets preventing shooting in the determined risk area, then the safety device generates a warning detectable with humans senses regarding this.

**Method for Identification:** Electronic Transponder, Location Detection

**Assignee(s):** SAKO LTD

**Application (Year/Month):** 2012-06

**Publication (Year/Month):** 2016-01

**Legal Status:** Active

**Learn More:** <https://patents.google.com/patent/US9239200B2/en>

## Gun equipped with camera

**Publication Number:** US8069605

**Abstract:** A stun gun is disclosed having a firing mechanism, and also having a camera for automatically capturing post-firing images after the firing mechanism is activated. The post-firing image is automatically and digitally marked, or partly marked, to indicate when the camera was used. A method of gun operation is also presented, along with a system that includes both the gun and a gun holder. Removal of the gun from the gun holder may activate the camera's visual or audio collection capabilities, and further actions such as removal of a gun safety may heighten activation of the camera. The camera's visual collection capabilities include viewing both the target and also the user of the gun.

**Method for Identification:** Electronic Transponder, Camera

**Assignee(s):** FRESSOLA BRENDAN A. | HYMAN ANDREW T. | FRESSOLA ALFRED A.

**Application (Year/Month):** 2008-02

**Publication (Year/Month):** 2011-12

**Legal Status:** Expired- Fee Related

**Learn More:** <https://patents.google.com/patent/US8069605B2/en>

## Apparatus and method for user control of appliances

**Publication Number:** US20020021206A1

**Abstract:** Apparatus (10) and a method for rendering a weapon (12) incapable of use unless authorized by a specified individual. More than one person may be authorized to use the weapon, however only one person may be authorized to use it at any one time. Each authorized person carries a badge (14) or other device which includes an rf transmitter (TAU) capable of transmitting a coded signal to a receiver (REU) installed in the weapon in response to a coded query from a unit (EU) installed in the weapon. If a properly coded transmission is received by the weapon, it becomes capable of being fired by the person who authorized its use. However, the weapon will not fire unless the person using the weapon is also standing behind the weapon. This prevents the weapon from being turned on the person authorized to use it. The apparatus stores details of the weapon's use (e.g., who, when, and where). This information is released upon receipt of an authorized code.

**Method for Identification:** Electronic Transponder

**Assignee(s):** MULLER J. JOSEPH | MATTHEWS F. MAURY | WOOTTON JOHN R.

**Application (Year/Month):** 2001-08

**Publication (Year/Month):** 2002-02

**Legal Status:** Granted

**Learn More:** <https://patents.google.com/patent/US20020021206A1/en>

## SAFETY DEVICE OF A GUN AND METHOD FOR USING SAFETY DEVICE

**Publication Number:** US20140230296A1

**Abstract:** A safety device of a gun includes elements for determining the geographical location of the gun and the shooting direction, elements for receiving via a short range radio link from a gun user's mobile phone a safety area map related to the current location and location data of moving or fixed targets in this safety area. The safety device additionally has elements for determining those moments, when the gun is in the shooting position. When the gun is in the shooting position the safety device determines the risk area, within which there must be no targets preventing shooting. The safety device determines the size of the safety area based on the type of gun and the shooting direction of the gun. If it is detected that there are targets preventing shooting in the determined risk area, then the safety device generates a warning detectable with humans senses regarding this.

**Method for Identification:** Electronic Transponder, Location Detection

**Assignee(s):** KUPARINEN, KARI

**Application (Year/Month):** 2012-06

**Publication (Year/Month):** 2014-08

**Legal Status:** Granted

**Learn More:** <https://patents.google.com/patent/US20140230296A1/en>

## Firearms and docking station system for limiting use of firearm

**Publication Number:** US6301815

**Abstract:** A gun and a base unit such that the gun cannot be fired unless the gun comes in close contact with the base unit and the base unit determines that an authorized person is holding the gun and interfacing with the base unit. The base unit pre-records and stores characteristics of authorized persons and unauthorized person and compares these data with the person interfacing with the base unit. The gun must be gripped to be activated by the base unit and if it is put down, the gun is no longer capable of being fired. The base unit can use multiple means of identifying an individual and a process is described for combining the results from the multiple sources to determine if a person is an authorized person above a selectable threshold of probability. The base unit can also develop a probability that the person attempting to use the gun is a specified unauthorized person. Thresholds of being an authorized person or not being an unauthorized person can be adjusted.

**Method for Identification:** Electronic Transponder, Voice Control, Finger and Palm Print Scanner

**Assignee(s):** COLT'S MANUFACTURING COMPANY, INC.

Application (Year/Month): 1999-03

Publication (Year/Month): 2001-10

Legal Status: Active

Learn More: <https://patents.google.com/patent/US6301815B1/en>

## Securing mechanisms for preventing access to a firearm by unauthorized users, and safety housing for use therewith

Publication Number: US6918519

**Abstract:** A securing mechanism for use in a holster, gun safe, base station, recharging/docking station, gun rack, or other safety housing for a firearm or other item, including one or more retaining members that engage the trigger guard, barrel, or other part of the firearm to prevent withdrawal of the firearm from the safety housing by anyone other than an authorized user of the firearm. The securing mechanism includes a biometric identification mechanism such as a fingerprint sensor for scanning fingerprint information of a prospective user of the firearm, and a processor for comparing the scanned biometric information with stored biometric information of an authorized user and releasing the retaining member only if the scanned biometric information matches that of the authorized user.

**Method for Identification:** Electronic Transponder, Voice Control, Finger and Palm Print Scanner, Trigger Block, Docking Station, and Holster

**Assignee(s):** SAFETY FIRST DEVICES, INCORPORATED

Application (Year/Month): 2002-04

Publication (Year/Month): 2005-07

Legal Status: Active

Learn More: <https://patents.google.com/patent/US6918519B2/en>

## Fire control authorization system for a firearm

Publication Number: US20010042332A1

**Abstract:** An authorization system for a firearm includes a personal device worn by the authorized user, modifications to the firearm's fire control system, and an authorization control circuit carried in the backstrap of the firearm handle. The authorization control circuit controls the fire control system and communicates with the personal device. In particular, the authorization control circuit will send a first signal to the personal device via an ultrasonic transponder and wait for a coded response. If the personal device is worn by a user and is within range and properly oriented, it will respond to the first signal. If the correct coded response is not received, the authorization control circuit signals a bi-stable solenoid located near the trigger arm to move its plunger to an extended position where it will cam the edge of the trigger bar out of engagement with the sear when the trigger is pulled. Consequently, the trigger bar will not move the sear. The firearm also forces the user to obtain authorization by not allowing the trigger to be pulled unless the firearm is held in normal firing position grasp. In that position, the user depresses a pressure sensing device on the handle. Depressing that device enables the trigger and initiates the authorization request.

**Method for Identification:** Electronic Transponder

**Assignee(s):** HEINS PATRICK | SCHMITTER EDWARD P. | GERING ARMAND | GAVAGE XAVIER | HITCHCOX JASON LEE | KESTELOOT ANDRE VICTOR.

**Application (Year/Month):** 2001-06

**Publication (Year/Month):** 2001-11

**Legal Status:** Abandoned

**Learn More:** <https://patents.google.com/patent/US20010042332A1/en>

## Securing mechanisms for preventing access to a firearm by unauthorized users, and safety housing for use therewith

**Publication Number:** US20020158095A1

**Abstract:** A securing mechanism for use in a holster, gun safe, base station, recharging/docking station, gun rack, or other safety housing for a firearm or other item, including one or more retaining members that engage the trigger guard, barrel, or other part of the firearm to prevent withdrawal of the firearm from the safety housing by anyone other than an authorized user of the firearm. The securing mechanism includes a biometric identification mechanism such as a fingerprint sensor for scanning fingerprint information of a prospective user of the firearm, and a processor for comparing the scanned biometric information with stored biometric information of an authorized user and releasing the retaining member only if the scanned biometric information matches that of the authorized user.

**Method for Identification:** Electronic Transponder, Voice Control, Finger and Palm Print Scanner, Trigger Block, Docking Station, and Holster

**Assignee(s):** CHINN ROBERT C. | FLETCHER DAVID R. | VOR KELLER ALBERT W.

**Application (Year/Month):** 2002-04

**Publication (Year/Month):** 2002-10

**Legal Status:** Granted

**Learn More:** <https://patents.google.com/patent/US20020158095A1/en>

## Fire control authorization system for a firearm

**Publication Number:** US6735897

**Abstract:** An authorization system for a firearm includes a personal device worn by the authorized user, modifications to the firearm's fire control system, and an authorization control circuit carried in the backstrap of the firearm handle. The authorization control circuit controls the fire control system and communicates with the personal device. In particular, the authorization control circuit will send a first coded signal to the personal device via an ultrasonic transponder and wait for a coded response. If the personal device is worn by a user and is within range, properly oriented and has received a correct code, it will respond to the signal by sending a coded response. If the correct coded response is not received, the authorization control circuit signals a brake solenoid located near the trigger bar to move to a locked position where it will cam the trigger bar out of engagement with the sear as the trigger is pulled. Consequently, the trigger bar will not move the sear and the firearm will not fire. If a correct coded response is received the brake solenoid moves to an unlocked position wherein it will not alter the trigger bar's normal rearward movement, thereby allowing engagement of the sear and firing of the firearm.

**Method for Identification:** Electronic Transponder

**Assignee(s):** RUEMPING THOMAS JEROME | HITCHCOX JASON LEE | SCHMITTER EDWARD P.

**Application (Year/Month):** 2002-10

**Publication (Year/Month):** 2004-05

**Legal Status:** Expired- Fee Related

**Learn More:** <https://patents.google.com/patent/US6735897B1/en>

## A COMPUTER-BASED PERSONAL ACCESS SYSTEM

**Publication Number:** WO2001013217A1

**Abstract:** A personal access control system (Fig. 3) includes a personal access module (100) and a functional system. The personal access module is placed with or on a user and identifies that user to the functional system. The personal access module may be embedded in a piece of commonly worn jewelry (300) (e.g., a watch or bracelet) or placed subcutaneously on a user. The functional system (200) may be any system operated by an individual and to which user accessed is controlled. As part of the functional system, an access controller (200) interacts with the personal access module via a near-field communication link. Each of the personal access module and access controller includes a receiver, a transmitter, a processor, and memory. Embodied within the processor and memory of the functional system is an authorization system.

**Method for Identification:** Body Worn Device

**Assignee(s):** FREDKIN, RICHARD

**Application (Year/Month):** 2000-08

**Publication (Year/Month):** 2001-02

**Legal Status:** Active

**Learn More:** <https://patents.google.com/patent/WO2001013217A1/en>

## A COMPUTER-BASED PERSONAL ACCESS SYSTEM

**Publication Number:** US7155855

**Abstract:** Firearms protected from unauthorized use. A disclosed firearm comprises a housing having a handle; a safety located in the housing to selectively prevent firing; and a module removably attachable to the handle and containing an electronic identification device to identify an authorized user. The electronic identification device controls the safety to prevent firing by unauthorized persons and to permit firing by the authorized user.

**Method for Identification:** Electronic

**Assignee(s):** HECKLER

**Application (Year/Month):** 2004

**Publication (Year/Month):** 2007

**Legal Status:** Active

**Learn More:** <https://patents.google.com/patent/WO2002082001A1/en>

## GUN CASE WITH FINGERPRINT READER

Publication Number: WO2013043138A1

**Abstract:** The invention relates to gun cases (1 ) for carrying guns, composed of a body (9), gun housing (10) and a locking unit (14); characterized in, for achieving a safety gun case (1 ), comprising at least one fingerprint reader part (2) configured on the body (9) forming the gun case (1 ), at least one control unit (13) to which fingerprint reading part (2) is programmed, a control unit (13) for unlocking/locking the locking unit (14) according to the fingerprint data taken from fingerprint identification/reader means (6) in fingerprint reader part (2) and at least one data entry unit (8) for programming the control unit (13) and making necessary adjustments.

**Method for Identification:** Electronic Transponder, Finger and Palm Print Scanner

**Assignee(s):** GEZGEL, CENGIZ

**Application (Year/Month):** 2012-07

**Publication (Year/Month):** 2013-03

**Legal Status:** Active

**Learn More:** <https://patents.google.com/patent/WO2013043138A1/en>

## SECURING MECHANISMS FOR PREVENTING ACCESS TO A FIREARM BY UNAUTHORIZED USERS, AND SAFETY HOUSINGS FOR USE THEREWITH

Publication Number: WO2002081999A1

**Abstract:** A securing mechanism for use in a holster, gun safe, base station, recharging/docking station, gun rack, or other safety housing for a firearm or other item, including one or more retaining members that engage the trigger guard, barrel, or other part of the firearm to prevent withdrawal of the firearm from the safety housing by anyone other than an authorized user of the firearm. The securing mechanism includes a biometric identification mechanism such as a fingerprint sensor for scanning fingerprint information of a prospective user of the firearm, and a processor for comparing the scanned biometric information with stored biometric information of an authorized user and releasing the retaining member only if the scanned biometric information matches that of the authorized user.

**Method for Identification:** Electronic Transponder, Voice Control, Finger and Palm Print Scanner, Trigger Block, Docking Station,

**Assignee(s):** SAFETY FIRST DEVICES INC.

**Application (Year/Month):** 2002-04

**Publication (Year/Month):** 2002-10

**Legal Status:** No Data

**Learn More:** <https://patents.google.com/patent/WO2002081999A1/en>

## GUN WITH USER NOTIFICATION

Publication Number: US20070271831A1

**Abstract:** A gun is disclosed having conventional components and a holster. The gun has means for detecting removal of the gun from the holster, means for processing the output of the detection means, and means for authenticating the user of the gun. The gun has means for notifying remote authorities that the gun has been removed from the holster, means for receiving remote commands to lock the trigger and/or initiate a global positioning system. The gun has means for selectively locking the trigger from a remote location and means for selectively activating a global positioning system from the remote location.

**Method for Identification:** Holster, GPS, Trigger Block

**Assignee(s):** NEWKIRK TONY N | NEWKIRK TOY M | NEWKIRK REGINALD H

**Application (Year/Month):** 2007-01

**Publication (Year/Month):** 2007-11

**Legal Status:** Granted

**Learn More:** <https://patents.google.com/patent/US20070271831A1/en>

## SECURE SMARTPHONE-OPERATED GUN TRIGGER LOCK

**Publication Number:** US20140215882A1

**Abstract:** A gun trigger-locking device which is configured to be manually installed on a gun with a trigger-blocking member disposed behind the trigger to prevent the gun from being fired. The device includes a data receiver, a data memory and a logic device for determining whether data received by the receiver is the same as data stored in the memory. If a data match is indicated, the logic device causes an electromagnetic device to move a locking member to an unlocked position, permitting the trigger-blocking member to be manually removed from the gun so the gun can be fired. A separate electronic key is provided to transmit unlock data to the data receiver of the trigger-locking device. This unlock data may be a password, a long pseudo-random number or biologic data identifying the gun owner or some other person who is licensed or otherwise authorized to fire the gun.

**Method for Identification:** Trigger Block

**Assignee(s):** MILDE, JR., KARL F.

**Application (Year/Month):** 2013-09

**Publication (Year/Month):** 2014-08

**Legal Status:** Granted

**Learn More:** <https://patents.google.com/patent/US20140215882A1/en>

## APPARATUS AND METHOD FOR USER CONTROL OF APPLIANCES

**Publication Number:** CA2398664C

**Abstract:** Apparatus (10) and a method for rendering a weapon (12) incapable of use unless authorized by a specified individual. More than one person may be authorized to use the weapon, however only one person may be authorized to use it at any one time. Each authorized person carries a badge (14) or other device which includes an rf transmitter (TAU) capable of transmitting a coded signal to a receiver (REU) installed in the weapon in response to a coded query from a unit (EU) installed in the weapon. If a properly coded transmission is received by the weapon, it becomes capable of being fired

by the person who authorized its use. However, the weapon will not fire unless the person using the weapon is also standing behind the weapon. This prevents the weapon from being turned on the person authorized to use it. The apparatus stores details of the weapon's use (e.g., who, when, and where). This information is released upon receipt of an authorized code.

**Method for Identification:** Personal Identification Card

**Assignee(s):** MULLER J. JOSEPH | WOOTTON JOHN R. | MATTHEWS F. MAURY

**Application (Year/Month):** 2002-08

**Publication (Year/Month):** 2003-02

**Legal Status:** No Data

**Learn More:** <https://patents.google.com/patent/CA2398664C/en>

## Gun with user notification

**Publication Number:** US7353632

**Abstract:** A gun is disclosed having conventional components and a holster. The gun has means for detecting removal of the gun from the holster, means for processing the output of the detection means, and means for authenticating the user of the gun. The gun has means for notifying remote authorities that the gun has been removed from the holster, means for receiving remote commands to lock the trigger and/or initiate a global positioning system. The gun has means for selectively locking the trigger from a remote location and means for selectively activating a global positioning system from the remote location.

**Method for Identification:** Electronic Transponder, Voice Control, Finger and Palm Print Scanner, Trigger Block, Holster, GPS

**Assignee(s):** NEWKIRK TONY N | NEWKIRK TOY M | NEWKIRK REGINALD HILL

**Application (Year/Month):** 2007-01

**Publication (Year/Month):** 2008-04

**Legal Status:** Expired- Fee Related

**Learn More:** <https://patents.google.com/patent/US7353632B2/en>

## Automatic gun safety devices based on positioning systems

**Publication Number:** US8850944

**Abstract:** A gun safety device on a gun automatically prevents the gun from firing when it is inside a registered area, which includes: a positioning device for determining the geographic position of a gun; a data processing device for identifying whether the gun is located within a registered area by comparing the gun's position with the stored geographic positions of the registered areas, and for generating a disable signal when the gun is identified to be inside a registered area; and a safety seizer operable to prevent the gun from discharging in response to receiving the disable signal from the data processing device. The automatic gun safety device may further include a communication device for communications with external networks. Optionally, the data processing device sends the gun's location to a monitoring center. The practice of this invention will ensure the community safety meanwhile defend the constitutional right of gun ownership.

**Method for Identification:** Electronic Transponder, Location Detection

**Assignee(s):** ZHOU, XIAOYAN

**Application (Year/Month):** 2013-01

**Publication (Year/Month):** 2014-10

**Legal Status:** Active

**Learn More:** <https://patents.google.com/patent/US8850944B2/en>

## GUN WITH USER NOTIFICATION

**Publication Number:** US20070119088A1

**Abstract:** A gun is disclosed having conventional components and a holster. The gun has means for detecting removal of the gun from the holster, means for processing the output of the detection means, and means for authenticating the user of the gun. The gun has means for notifying remote authorities that the gun has been removed from the holster, means for receiving remote commands to lock the trigger and/or initiate a global positioning system. The gun has means for selectively locking the trigger from a remote location and means for selectively activating a global positioning system from the remote location.

**Method for Identification:** Electronic Transponder, Holster, GPS

**Assignee(s):** NEWKIRK TONY N | NEWKIRK TOY M | NEWKIRK REGINALD H

**Application (Year/Month):** 2007-01

**Publication (Year/Month):** 2007-05

**Legal Status:** Granted

**Learn More:** <https://patents.google.com/patent/US20070119088A1/en>

## AUTOMATIC GUN SAFETY DEVICES BASED ON POSITIONING SYSTEMS

**Publication Number:** US20140202058A1

**Abstract:** A gun safety device on a gun automatically prevents the gun from firing when it is inside a registered area, which includes: a positioning device for determining the geographic position of a gun; a data processing device for identifying whether the gun is located within a registered area by comparing the gun's position with the stored geographic positions of the registered areas, and for generating a disable signal when the gun is identified to be inside a registered area; and a safety seizer operable to prevent the gun from discharging in response to receiving the disable signal from the data processing device. The automatic gun safety device may further include a communication device for communications with external networks. Optionally, the data processing device sends the gun's location to a monitoring center. The practice of this invention will ensure the community safety meanwhile defend the constitutional right of gun ownership.

**Method for Identification:** Electronic Transponder, Location Detection

**Assignee(s):** ZHOU, XIAOYAN

**Application (Year/Month):** 2013-01

Publication (Year/Month): 2014-07

Legal Status: Granted

Learn More: <https://patents.google.com/patent/US20140202058A1/en>

## SECURE SMARTPHONE-OPERATED GUN TRIGGER LOCK

Publication Number: US20160033222A1

**Abstract:** A gun trigger-locking device which is configured to be manually installed on a gun with a trigger-blocking member disposed behind the trigger to prevent the gun from being fired. The device includes a data receiver, a data memory and a logic device for determining whether data received by the receiver is the same as data stored in the memory. If a data match is indicated, the logic device causes an electromagnetic device to move a locking member to an unlocked position, permitting the trigger-blocking member to be unlocked so the gun can be fired. A separate electronic key is provided to transmit unlock data to the data receiver of the trigger-locking device. This unlock data includes biologic data identifying the gun owner or some other person who is licensed or otherwise authorized to fire the gun. The trigger-locking device includes means for detecting when the device has been tampered with or removed from the gun, and transmitting an alert signal to the electronic key, for relaying to a central station.

**Method for Identification:** Electronic Transponder, Trigger Block, Alert Signal

**Assignee(s):** MILDE, JR., KARL F.

**Application (Year/Month):** 2015-10

**Publication (Year/Month):** 2016-02

**Legal Status:** Pending

Learn More: <https://patents.google.com/patent/US20160033222A1/en>

## SECURE SMARTPHONE-OPERATED LOCKING DEVICE

Publication Number: US20150075232A1

**Abstract:** A gun trigger-locking device which is configured to be manually installed on a gun with a trigger-blocking member disposed behind the trigger to prevent the gun from being fired. The device includes a data receiver, a data memory and a logic device for determining whether data received by the receiver is the same as data stored in the memory. If a data match is indicated, the logic device causes an electromagnetic device to move a locking member to an unlocked position, permitting the trigger-blocking member to be manually removed from the gun so the gun can be fired. A separate electronic key is provided to transmit unlock data to the data receiver of the trigger-locking device. This unlock data may be a password, a long pseudo-random number or biologic data identifying the gun owner or some other person who is licensed or otherwise authorized to fire the gun.

**Method for Identification:** Electronic Transponder, Combination Lock, Trigger Block

**Assignee(s):** MILDE, JR., KARL F.

**Application (Year/Month):** 2014-11

**Publication (Year/Month):** 2015-03

**Legal Status:** Pending

Learn More: <https://patents.google.com/patent/US20150075232A1/en>

## RETROFITTED AND NEW WEAPONS WITH BIOMETRIC SENSORS FOR MULTIPLE USERS USING FLEXIBLE SEMICONDUCTORS

Publication Number: US20110056108A1

**Abstract:** Semiconductors on a flexible substrate provide the sensing circuitry needed for personalizing a handgun grip. In one embodiment, a portion of the semiconductor structure can be applied to a surface using a technique similar to inkjet printing. The flexible semiconductor product can be applied to a sheet or mold placed over the grip, or into the injection molding of the grip itself. Alternately, the semiconductors can be initially formed and printed on a curved grip surface.

**Method for Identification:** Electronic Transponder, Finger and Palm Print Scanner, Sensor

**Assignee(s):** SCHODEL HANS | MCCORD JONAS

**Application (Year/Month):** 2008-05

**Publication (Year/Month):** 2011-03

**Legal Status:** Pending

Learn More: <https://patents.google.com/patent/US20110056108A1/en>

## Electronic weapon safety system

Publication Number: US6185852

**Abstract:** A gun safety system for use with a gun having a barrel, a handle and a safety latch structured for movement from a first disabled position wherein the firing mechanism is inoperable to a second enabled position wherein the firing mechanism operable, comprising a substantially flat main housing attached to the gun handle over the safety latch and having voice and finger print sensing and verification circuitry and means for blocking access to the gun safety latch. The voice and finger print sensing and verification circuitry includes a sensing integrated circuit, having a finger print image surface matrix and a microphone sound sensor, and an authentication integrated circuit electrically interconnected to the sensing integrated circuit, structured to compare the gun user's voice pattern and finger print image to those stored in memory. The means for blocking the safety latch includes a bimetallic strip centrally disposed within a cavity, a capacitor electrically interconnected to a battery, the authentication integrated circuit and the strip, and a substantially flat blocking disk. The blocking disk is sized and shaped to cover access ports in the main housing so that in the absence of user authentication the safety latch is inaccessible. Upon user authentication, the blocking disk moves away from the access ports rendering the safety latch accessible.

**Method for Identification:** Electronic Transponder, Finger and Palm Print Scanner, Sensor

**Assignee(s):** ANTHONY MICHAEL M. | WHALEN RONALD F.

**Application (Year/Month):** 1998-10

**Publication (Year/Month):** 2001-02

**Legal Status:** Active

Learn More: <https://patents.google.com/patent/US6185852B1/en>

## Handgun locking and unlocking apparatus

Publication Number: US4763431

**Abstract:** Locking devices for guns operate to lock the guns against inadvertent or unauthorized firing, and at the same time enable quick and controlled unlocking of guns, to enable their use, as against home intruders.

**Method for Identification:** Combination Lock

**Assignee(s):** ALLAN ROBERT M | ALLAN ROBERT E

**Application (Year/Month):** 1986-09

**Publication (Year/Month):** 1988-08

**Legal Status:** Expired

**Learn More:** <https://patents.google.com/patent/US4763431A/en>

## SECURE SMARTPHONE-OPERATED GUN LOCK WITH MEANS FOR OVERRIDING RELEASE OF THE LOCK

Publication Number: US20140215883A1

**Abstract:** A gun locking and unlocking device, which may be configured to be disposed adjacent the trigger of a gun to alternatively prevent or enable firing, includes a data receiver, a data memory and a logic device for determining whether data received by the receiver is the same, or substantially the same, as data stored in the data memory. One or more separate electronic gun keys are provided to transmit gun lock/unlock data to the data receiver of the gun lock device. The logic device responds to a gun control signal transmitted by one of the gun key devices with priority over a gun control signal transmitted by another gun key device. The logic device automatically locks the gun when it is located in a prohibited area, such as a school. The logic device also locks the gun when the gun user is intoxicated or acting in an irrational manner. Once locked, the user must set a timer which allows the gun to be unlocked only after a specified "wait" time.

**Method for Identification:** Electronic Transponder,

**Assignee(s):** MILDE, JR., KARL F.

**Application (Year/Month):** 2013-12

**Publication (Year/Month):** 2014-08

**Legal Status:** Granted

**Learn More:** <https://patents.google.com/patent/US20140215883A1/en>

## Secure smartphone-operated gun lock with means for overriding release of the lock

Publication Number: US8931195

**Abstract:** A gun locking and unlocking device, which may be configured to be disposed adjacent the trigger of a gun to alternatively prevent or enable firing, includes a data receiver, a data memory and a

logic device for determining whether data received by the receiver is the same, or substantially the same, as data stored in the data memory. One or more separate electronic gun keys are provided to transmit gun lock/unlock data to the data receiver of the gun lock device. The logic device responds to a gun control signal transmitted by one of the gun key devices with priority over a gun control signal transmitted by another gun key device. The logic device automatically locks the gun when it is located in a prohibited area, such as a school. The logic device also locks the gun when the gun user is intoxicated or acting in an irrational manner. Once locked, the user must set a timer which allows the gun to be unlocked only after a specified "wait" time.

**Method for Identification:** Electronic Transponder, Smart Phone, Trigger Block

**Assignee(s):** MILDE, JR., KARL F.

**Application (Year/Month):** 2013-12

**Publication (Year/Month):** 2015-01

**Legal Status:** Active

**Learn More:** <https://patents.google.com/patent/US8931195B2/en>

## Advance security gun with advance coding system

**Publication Number:** US20140338244A1

**Abstract:** A high-tech security gun that works with Wi-Fi or any other special network, and will not work when it is removed from the address installed by its provider. The gun does not point forward at anyone except it is operated to point at any direction, when controlled wirelessly with a special module.

**Method for Identification:** Remotely Activated

**Assignee(s):** CHUKWU, AHAMEFULA

**Application (Year/Month):** 2014-02

**Publication (Year/Month):** 2014-11

**Legal Status:** Granted

**Learn More:** <https://patents.google.com/patent/US20140338244A1/en>

## SAFETY DEVICE OF A GUN AND METHOD FOR USING SAFETY DEVICE

**Publication Number:** EP2721363B1

**Abstract:** The safety device (22) of a gun according to the invention comprises means for determining the geographical location (224) of the gun and the shooting direction (223). The safety device additionally comprises means (225) for receiving via a short range radio link from a gun user's mobile phone a safety area map related to the current location and location data of moving or fixed targets in this safety area. The safety device additionally has means (221, 229) for determining those moments, when the gun is in the shooting position. When the gun is in the shooting position the safety device determines the risk area, within which there must be no targets preventing shooting. The safety device determines the size of the safety area based on the type of gun and the shooting direction of the gun. If it is detected that there are targets preventing shooting in the determined risk area, then the safety device (22) generates a warning (227, 226) detectable with humans senses regarding this.

**Method for Identification:** Electronic Transponder, Smart Phone, Sensor

**Assignee(s):** SAKO LTD

**Application (Year/Month):** 2012-06

**Publication (Year/Month):** 2015-05

**Legal Status:** No Data

**Learn More:** <https://patents.google.com/patent/EP2721363B1/en>

## Gun

**Publication Number:** US5502915

**Abstract:** A programmable gun has a body supporting a handle, a trigger and a pin actuatable between a first position providing for a trigger depression to fire a bullet and a second position restraining the trigger depression. A memory stores a print identifying an authorized person's hand when such person inserts a key in the handle and then grips the handle. Hand prints of one (1) or more authorized persons, or several hand prints of one (1) person, may be stored in the memory when such persons move the key, after insertion, to individual positions and then grip the handle. When an authorized person thereafter grips the handle, that person's hand generates a print for comparison with the prints in the memory. A comparison coincidence produces a pin actuation to the first position. A subsequent gun firing is recorded in the memory as to time and as to the authorized person. When a comparison coincidence is established, the ability to fire the gun continues until such authorized person relinquishes the gun. If the authorized person relinquishes the gun before firing, the pin becomes actuated to the second position after a particular time period. If the authorized person again grips the handle during such particular time period, the time period is re-initiated. When an unauthorized person grips the handle, no comparison coincidence occurs and the pin is not actuated to the first position. A print of such unauthorized person's hand and the recording time are recorded in the memory.

**Method for Identification:** Electronic Transponder, Pressure Sensor

**Assignee(s):** MENDELSON, EDDIE S.

**Application (Year/Month):** 1994-04

**Publication (Year/Month):** 1996-04

**Legal Status:** Expired

**Learn More:** <https://patents.google.com/patent/US5502915A/en>

## Secure smartphone-operated gun trigger lock

**Publication Number:** US8893420

**Abstract:** A battery-powered trigger-locking device, which is configured to be disposed on a gun with a trigger for firing, includes a data receiver, a data memory and a logic device for determining whether data received by the receiver is the same, or substantially the same, as data stored in the memory. If a data match is indicated, the logic device causes an electromagnetic device to move a trigger-locking member to an unlocked position, permitting the gun to be fired. A separate electronic gun key is provided to transmit gun unlock data to the data receiver of the trigger-locking device. This gun unlock

data may be a password, a long pseudo-random number or biologic data identifying the gun owner or some other person who is licensed or otherwise authorized to fire the gun.

**Method for Identification:** Electronic Transponder, Trigger Block

**Assignee(s):** MILDE, JR., KARL F. | MATOS, JEFFREY A.

**Application (Year/Month):** 2013-02

**Publication (Year/Month):** 2014-11

**Legal Status:** Active

**Learn More:** <https://patents.google.com/patent/US8893420B2/en>

## Gun System and Gun Control Management System Prohibit Gun Violence in Reactive and Proactive

**Publication Number:** US20140298701A1

**Abstract:** The Gun System and Gun-Control Management System is a two part system to thwart gun violence in any places. The Gun System is a microprocessor with memory and supporting components that are embedded in the gun. The CPU of the Gun System executes software with data from the memory to identify authorized users with stand-alone electrical device; to discharge Unauthorized user with remote power switch or systems; to prohibit firearm use in restricted areas such as schools and other public places with GPS device and disable the gun trigger by moving it into the locked position with disabling device. In this way, the gun system thwarts gun violence in a reactive mode. The Gun-Control Management system maintains a plurality of database in communication with multiple gun systems to thwarts gun violence in proactive mode.

**Method for Identification:** Electronic Transponder, Trigger Block

**Assignee(s):** PENG, CHAORONG

**Application (Year/Month):** 2013-04

**Publication (Year/Month):** 2007

**Legal Status:** Pending

**Learn More:** <https://patents.google.com/patent/US20140298701A1/en>

## ADVANCED SECURITY GUN WITH ADVANCED CODING SYSTEM

**Publication Number:** WO2015116021A1

**Abstract:** Advanced security gun that works with Wi-Fi or GSM or any other special network, and will not work when it is removed from the address installed by its provider. The gun will not point forward at anyone, except it is operated by the user to point at any direction, when controlled wirelessly with a special module.

**Method for Identification:** Remotely Activated

**Assignee(s):** CHUKWU, AHAMEFULA

**Application (Year/Month):** 2014-05

**Publication (Year/Month):** 2015-08

**Legal Status:** Active

Learn More: <https://patents.google.com/patent/WO2015116021A1/en>

## Gun with locking device

Publication Number: DE19805306A1

**Abstract:** US-A-5502915, a revolver is described which includes a locking device that locks the hammer when the turret is operated by an unauthorized person. The device has a scanner compares the pistol grip, which determines the Handball impression of the shooter and a ge setting pattern. If the detected print matches the stored pattern, the impact hammer is unlocked by a solenoid, so that the weapon is released for shooting. The solution is to guns not applicable because there the magazine is housed in the pistol grip and would not be room for the locking device.

**Method for Identification:** Electronic Transponder, Trigger Block, Sensor

**Assignee(s):** SIG Arms International

**Application (Year/Month):** n/a

**Publication (Year/Month):** 1999-12

**Legal Status:** Withdrawn

Learn More: <https://patents.google.com/patent/DE19805306A1/en?q=gun&cpc=F41A17%2f066>

## Safety system for firearms

Publication Number: US8127482B2

**Abstract:** A firearm enabling and disabling electronic system comprising a base unit (1) and a safety device (4) adapted to be incorporated into a firearm (7). Each of the base unit (1) and the safety device (4) has a transmitter and/or receiver (2, 5) adapted to exchange and process wireless command signals with each other. The safety device (4) has an actuating circuit (6) which is controlled by the transmitter and/or receiver (5) of the safety device (4) and is adapted to actuate a locking mechanism (8), wherein in the locking mechanism is operable to prevent a firearm from firing. The wireless command signal (9) is operable within a predetermined distance between the base unit (1) and the safety device (4) so that when the safety device (4) is located within the predetermined distance from the base unit (1), transmitters and/or receivers (2, 5) exchange the wireless command signal which causes the transmitter and/or receiver (5) of the safety device (4) to prompt the actuating circuit (6) to actuate the locking mechanism (8) thereby causing the locking mechanism (8) to assume a locking mode in which a firearm (7) is prevented from firing.

**Method for Identification:** Electronic Transponder, Sensor

**Assignee(s):** O'shaughnessy Patrick Mcnamara Robert Gerard

**Application (Year/Month):** 2010-02-05

**Publication (Year/Month):** 2012-03

**Legal Status:** Active

Learn More: <https://patents.google.com/patent/US8127482B2/en>

## Detection and viewing system

**Publication Number:** US20080136908 A1

**Abstract:** An audio-video communication system comprises a wireless exterior module located proximate an entrance, a computerized controller running a software application, and a remote peripheral device. The wireless exterior module includes a proximity sensor for detecting a person at the entrance, a video camera for recording an image of the person at the entrance, a microphone for recording the person at the entrance, a speaker for playing audio to the person at the entrance, a transmitter for communicating sounds and images of the person at the entrance, and a receiver for receiving communications at the wireless exterior module. The computerized controller is disposed in wireless electronic communication with the wireless exterior module via the transmitter and the receiver of the wireless exterior module. The remote peripheral device is configured to electronically communicate with the computerized controller for viewing an image from the video camera communicated from the wireless exterior module.

**Method for Identification:** Electronic Transponder, Sensor

**Assignee(s):** Revolutionary Concepts, Inc.

**Application (Year/Month):** 2007-10

**Publication (Year/Month):** 2008-01

**Legal Status:** Granted

**Learn More:** <https://www.google.com/patents/US20080136908?dq=8,144,184>