US009262902B2

(12) **United States Patent**
Costa

(10) **Patent No.: US 9,262,902 B2**
(45) **Date of Patent: Feb. 16, 2016**

(54) **APPARATUS AND METHOD FOR TAGGING A PERPETRATOR**

(71) Applicant: **John Costa**, Saugerties, NY (US)

(72) Inventor: **John Costa**, Saugerties, NY (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 39 days.

(21) Appl. No.: **13/936,842**

(22) Filed: **Jul. 8, 2013**

(65) **Prior Publication Data**

US 2014/0352818 A1 Dec. 4, 2014

Related U.S. Application Data

(60) Provisional application No. 61/828,098, filed on May 28, 2013.

(51) **Int. Cl.**
G08B 15/02 (2006.01)

(52) **U.S. Cl.**
CPC ***G08B 15/02*** (2013.01); *Y10T 137/8376* (2015.04)

(58) **Field of Classification Search**
CPC E05G 1/12; E05G 1/10; E05G 1/04; E05G 5/00; G08B 15/00; G08B 15/02
USPC 109/20, 21, 25, 29, 31, 32, 38
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

1,477,701	A *	12/1923	Green	251/74
3,230,912	A *	1/1966	Hohmann	109/20
4,068,780	A *	1/1978	Fegley	222/5
4,867,076	A *	9/1989	Marcone	109/20
4,996,521	A *	2/1991	Hollow	340/691.7
5,402,000	A *	3/1995	Owens, II	340/545.1
5,598,142	A *	1/1997	Winner, Jr.	340/438
5,655,461	A *	8/1997	Gilbert	109/20
5,881,915	A *	3/1999	Smrz	222/78
7,488,954	B2 *	2/2009	Ross et al.	250/458.1
7,690,540	B1 *	4/2010	Owens	222/642
7,857,198	B2 *	12/2010	Bell	232/1 D
2006/0049931	A1 *	3/2006	Sugimura	340/500
2008/0152229	A1 *	6/2008	Wang et al.	382/192
2010/0065463	A1 *	3/2010	Taylor	206/524.1
2010/0128123	A1 *	5/2010	DiPoala	348/143
2014/0106357	A1 *	4/2014	Berrada et al.	435/6.12
2014/0158027	A1 *	6/2014	Bolden	109/29
2014/0306818	A1 *	10/2014	Batchelder et al.	340/501
2014/0352818	A1 *	12/2014	Costa	137/560
2014/0353283	A1 *	12/2014	Kahramangil et al.	219/68

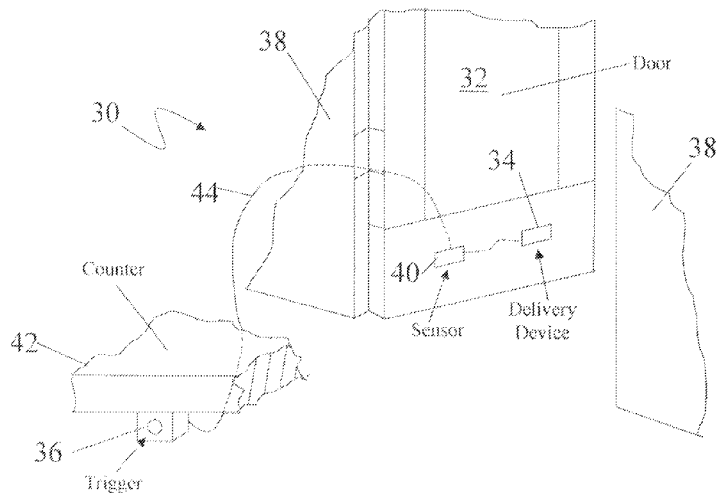
* cited by examiner

Primary Examiner — Suzanne Barrett
(74) *Attorney, Agent, or Firm* — Tech Valley Patent, LLC; John Pietrangelo

(57) **ABSTRACT**

Apparatus and methods for tagging, or otherwise marking, a perpetrator or suspected perpetrator are provided. The apparatus includes a marker delivery device configured to mark the perpetrator, for example, with a canine scent or fluorescent marker; and a trigger configured to actuate the marker delivery device, for example, a button or switch. The marker delivery device may deliver a fluid or a solid to the clothes or accessories of a perpetrator when activated. The apparatus may also include a sensor adapted to detect the presence of the perpetrator, for example, an optical or mechanical sensor. The sensor may be adapted to detect the presence of the perpetrator in a target area of the marker delivery device. Methods of tagging are also disclosed. Aspects of the invention are uniquely adapted for convenience store or gas station security, but can also be applied in residential and office environments, among others.

20 Claims, 4 Drawing Sheets



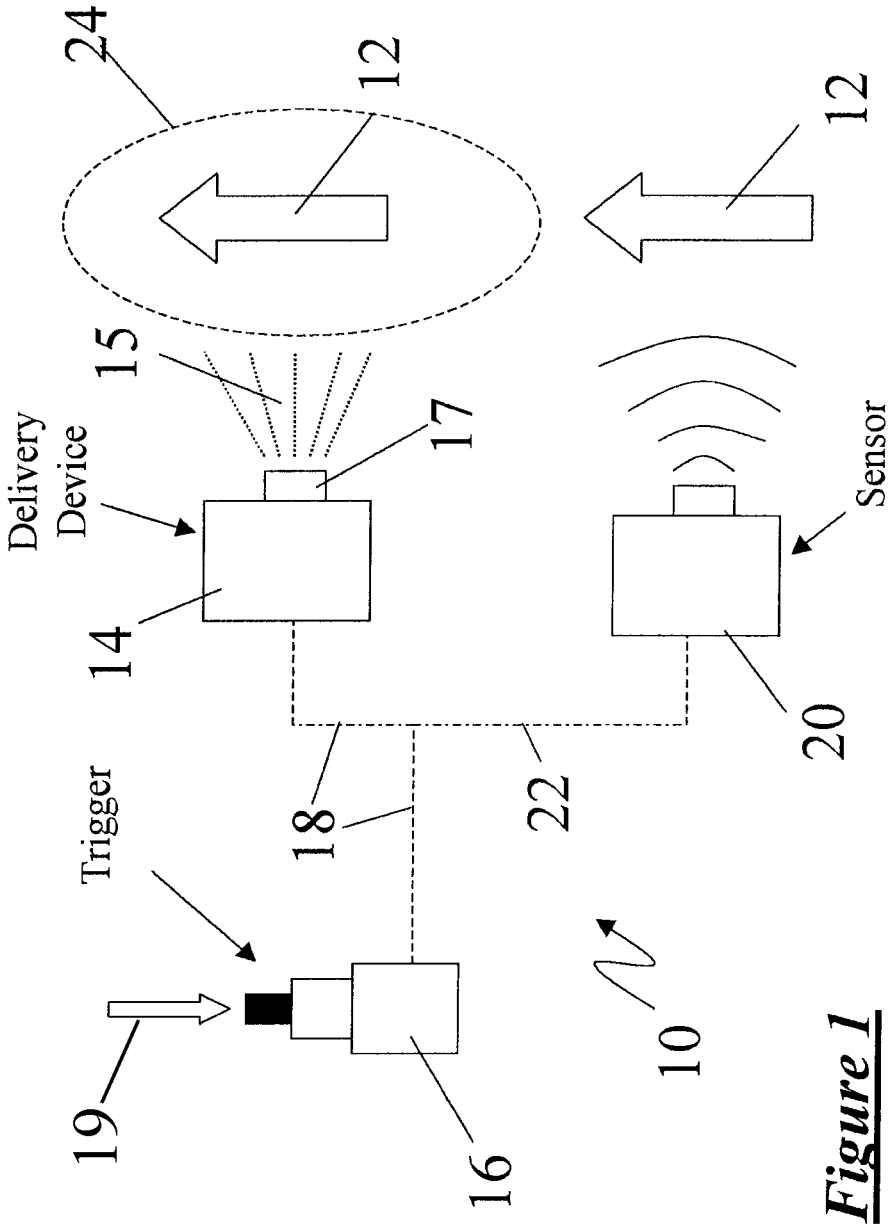

24
12
12
15
17
Delivery Device
Sensor
14
20
18
22
Trigger
19
16
10

Figure 1

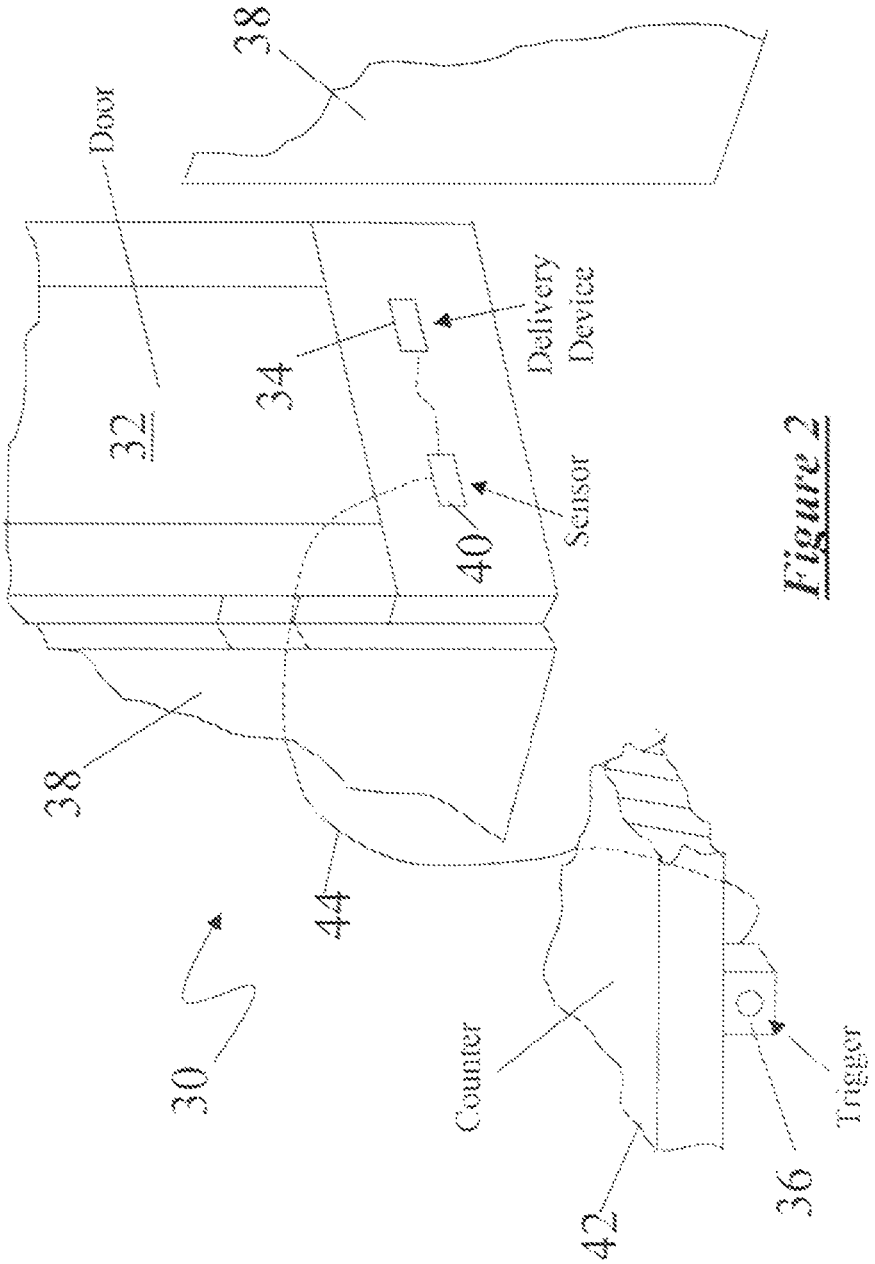

38
Door
37
34
Delivery Device
40
Sensor
38
44
30
Counter
42
36
Trigger

Figure 2

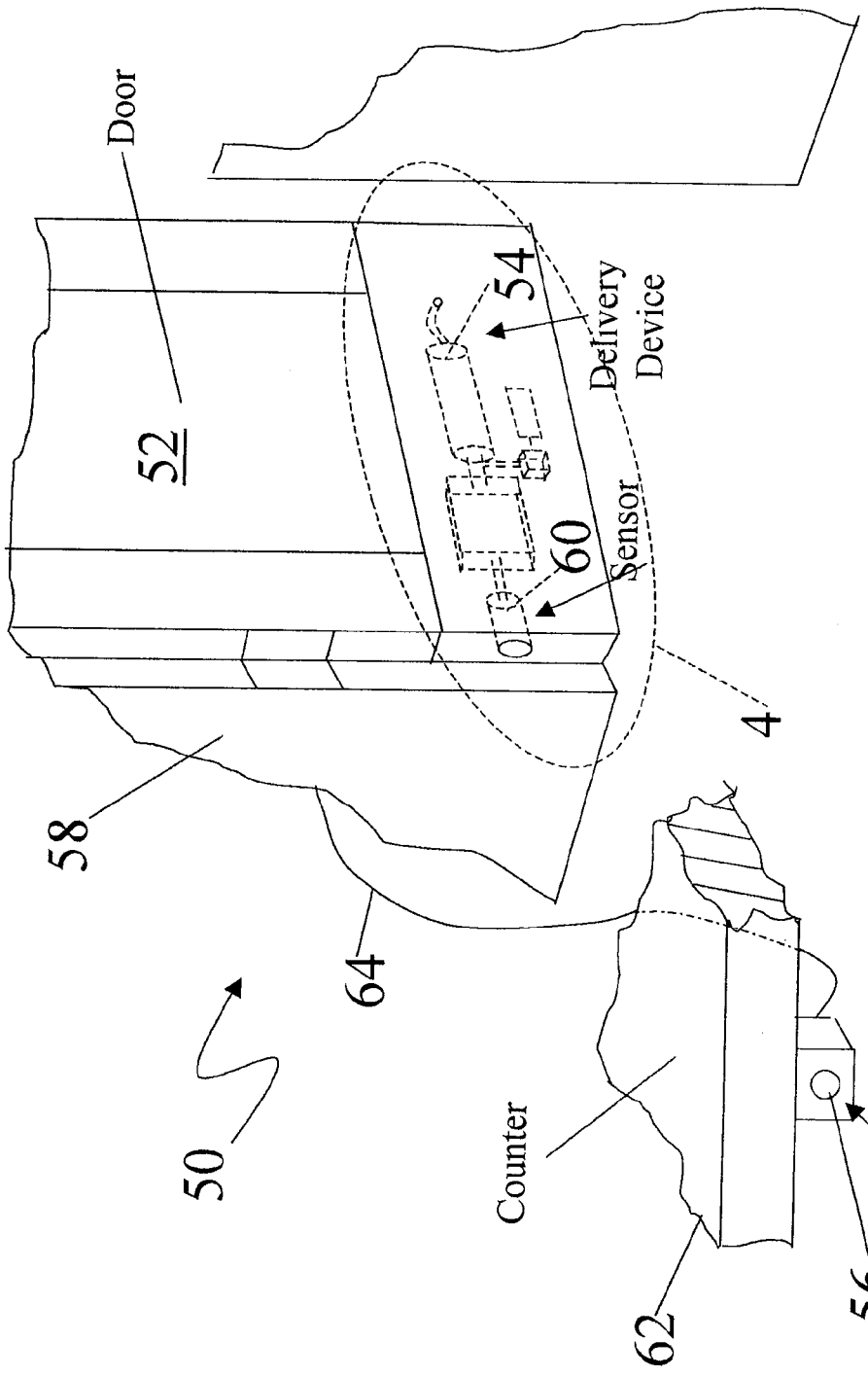

Door
52
54
Delivery Device
60
Sensor
4
58
64
50
Counter
62
56
Trigger

Figure 3

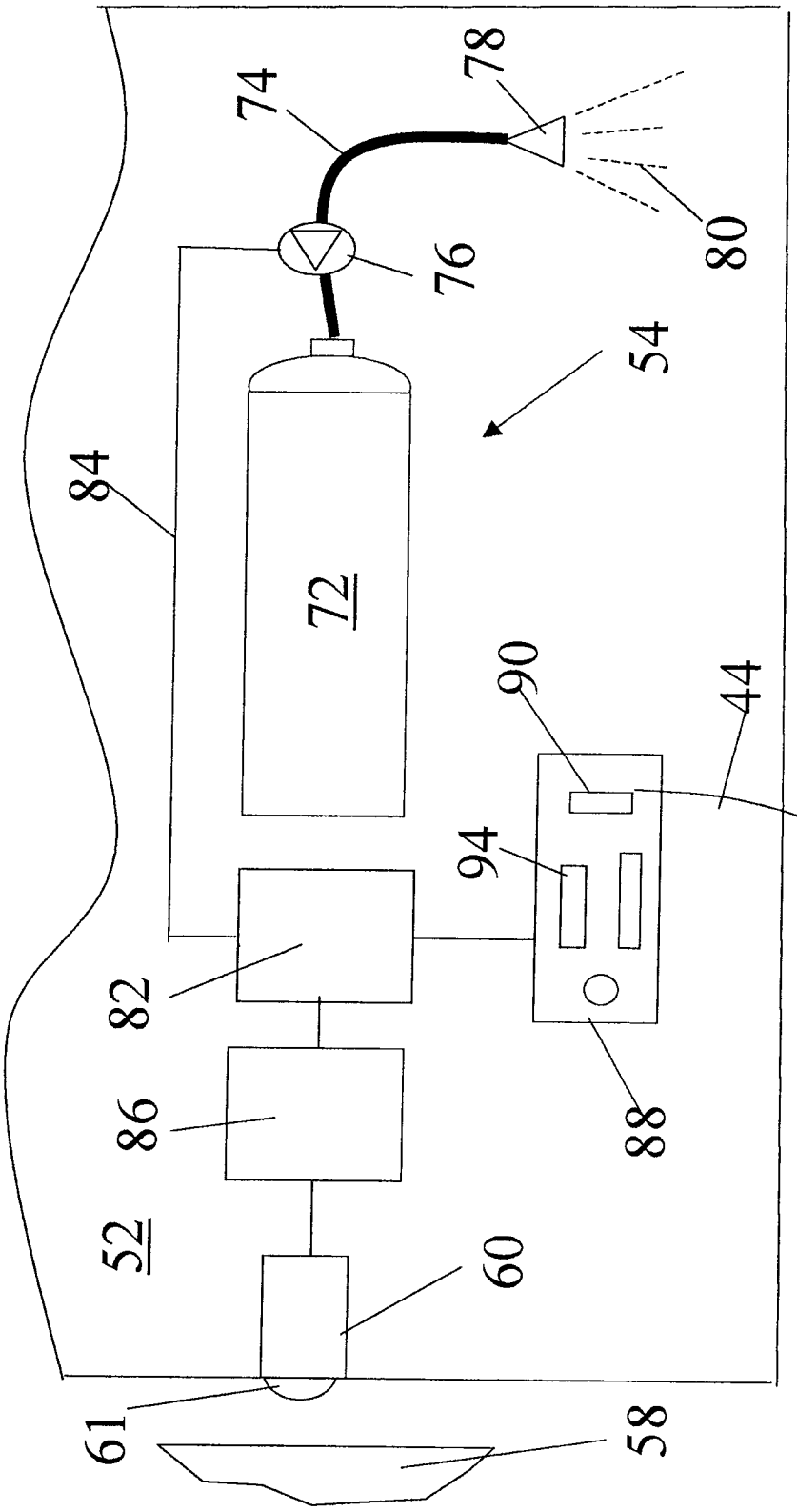


Figure 4

APPARATUS AND METHOD FOR TAGGING A PERPETRATOR

CROSS-REFERENCE TO RELATED APPLICATION

This application claims priority from U.S. Provisional Patent Application 61/828,098 filed on May 28, 2013, the disclosure of which is included by reference herein in its entirety.

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates, generally, to apparatus and methods for tagging a perpetrator, for example, with a detectable marker. Particularly, the present invention relates to apparatus and methods for covertly tagging a perpetrator while the perpetrator is exiting a store with a scent or dye that can be detected by law enforcement personnel.

2. Description of Related Art

Small commercial establishments, for example, convenience stores, liquor stores, and gas stations, are often the targets of thieves and delinquents due to their availability and since they are typically employed by single employees, especially at off-peak hours, such as, in the late evening. Though attacks or robberies of such establishments are common, statistics strongly indicate that the perpetrators are often not apprehended nor are potential suspects even identified.

The reasons for the lack of success in apprehending perpetrators and in reducing the number of incidents are myriad and unclear. However, a clear need exists to discourage perpetrators while increasing the rate at which perpetrators are apprehended and brought to justice. Aspects of the present invention provide apparatus and methods addressing this well-recognized need.

SUMMARY OF ASPECTS OF THE INVENTION

Aspects of the present invention address this well-recognized need by providing apparatus and methods for tagging perpetrators, for example, as they leave a commercial establishment, such as, a convenience store, wherein the perpetrator can be later identified by detecting the tag, for example, a scent.

One embodiment of the present invention is an apparatus for tagging a perpetrator, the apparatus comprising or including a marker delivery device configured to mark the perpetrator; and a trigger configured to actuate the marker delivery device. The marker delivery device may be a fluid delivery device, for example, a sprayer, and a solid delivery device, for example, a projectile emitter. In one aspect, the marker is a scent, for example, a canine-detectable scent. The apparatus may also include a sensor adapted to detect a presence of the perpetrator.

Another embodiment of the invention is a method for tagging a perpetrator with a marker, the method comprising or including determining the presence of a perpetrator; and contacting the perpetrator with the marker. The method may further include sensing a presence of the perpetrator in a target area before contacting the perpetrator with the marker in the target area. In one aspect, contacting the perpetrator may be practiced by activating a marker delivery device. In one aspect, the method further comprises identifying the perpetrator by detecting the marker on the perpetrator.

A further embodiment of the invention is an apparatus for tagging a perpetrator, the apparatus comprising or including a canine scent delivery device; a sensor adapted to sense the presence of the perpetrator in a target area of a canine scent delivery device; and a trigger configured to activate at least one of the canine scent delivery device and the sensor; wherein when the trigger is actuated and at least one of the canine scent delivery device and the sensor are activated, when a perpetrator in the target area is detected by the sensor, canine scent is sprayed on the perpetrator by the canine scent delivery device. In one aspect, the apparatus may further include a fluorescent marker delivery device. In another aspect, the canine scent delivery device is positioned in a vicinity of a door or in a door.

Details of these aspects of the invention, as well as further aspects of the invention, will become more readily apparent upon review of the following drawings and the accompanying claims.

BRIEF DESCRIPTION OF THE FIGURES

The subject matter that is regarded as the invention is particularly pointed out and distinctly recited in the claims at the conclusion of this specification. The foregoing and other objects, features, and advantages of the invention will be readily understood from the following detailed description of aspects of the invention taken in conjunction with the accompanying drawings, in which:

FIG. **1** is a schematic diagram of an apparatus for tagging a perpetrator according to one aspect of the invention.

FIG. **2** is a schematic diagram of another apparatus for tagging a perpetrator according to another aspect of the invention.

FIG. **3** is a schematic diagram of another apparatus for tagging a perpetrator according to another aspect of the invention.

FIG. **4** is a detailed view of the apparatus shown in FIG. **3** identified as Detail **4** in FIG. **3**.

DETAILED DESCRIPTION OF FIGURES

The details and scope of the embodiments and aspects of the present invention can best be understood upon review of the attached figures and their following descriptions. FIG. **1** is a schematic diagram of an apparatus **10** for tagging, marking, labeling, or otherwise placing an identifiable indicator on a perpetrator according to one aspect of the invention. In the diagram shown in FIG. **1** a perpetrator **12**, for example, a thief, a robber, a burglar, a shoplifter, a bandit, a mugger, an assailant, an aggressor, a criminal, a crook, among other wrongdoers or suspected wrongdoers, and the direction the perpetrator **12** is moving is indicated by arrow **12**. Apparatus **10** includes a marker delivery device **14**, for example, a sprayer, configured to mark the perpetrator **12**, and a trigger **16**, for example, a switch, configured to actuate the marker delivery device **14**. Marker delivery device **14** comprises a device that emits a marker **15**, for example, a solid, a liquid, a gas, or a combination thereof, that contacts perpetrator **12** and that is detectable and/or identifiable at a later time, for example, after the suspected perpetrator **12** is apprehended. According to aspects of the invention, when an operator, for example, a convenience store attendant, a sales clerk, a cashier, a bank teller, a storekeeper, a shopkeeper, a retailer, a proprietor, a business owner, a home owner, an office worker, a security guard, or a police officer, among others, identifies a perpetrator **12** or even a potential perpetrator, trigger **16** is actuated, for example, manually actuated, whereby delivery device **14** emits marker **15**, for example, in the form of a spray or mist.

According to aspects of the invention, marker delivery device **14** may comprise a fluid delivery device, such, as a liquid delivery device or a gas delivery device, or a solid delivery device, wherein the solid, liquid, or gas delivered may be detectable at a later time. In one aspect, marker delivery device **14** emits a gas, for example, a visible or a substantially invisible gas, for instance, neon gas or water vapor, that can attach to, for example, condense on, perpetrator **12** for later detection, for example, on the clothes or on an accessory worn or carried by perpetrator **12**, and can then be detected at a later time. In another aspect, marker delivery device **14** may emit a liquid, for example, a visible or a substantially invisible liquid, for example, a paint or a dye, that contacts perpetrator **14**, for example, contacts the clothes or an accessory worn or carried by perpetrator **12**, and can then be detected at a later time. In another aspect, marker delivery device **14** may emit a solid, for example, a visible or a substantially invisible solid, for example, chalk or a GPS microchip or another detectable electronic device, such, as traceable micro emitter or micro chip, that contacts or attaches to perpetrator **14**, for example, contacts the clothes or an accessory worn or carried by perpetrator **12** and can then be detected at a later time. In one aspect, one or more of these markers may be delivered by delivery device **14**. In one aspect, the marker may be directed to a lower extremity of the perpetrator **12**, for example, on a shoe or on a pant cuff. According to aspects of the invention, "at a later time" may be at least 5 minutes later than when delivered, but is typically, at least one hour later, and may be, days, weeks, months, or even years later, depending upon the marker used.

In one aspect of the invention, marker **15** may comprise a liquid scent, for example, a scent that can be detected by a tracking animal, such as, a canine, that is, a dog. For example, the liquid scent may be a pheromone or pheromone-type scent, for example, as provided by commercial laboratory. In one aspect the marker may be a fluorescent marker, for example, a fluorescent dye, such as, an A/C fluorescent dye, or its equivalent.

Delivery device **14** may be any conventional delivery device capable of emitting a solid, liquid, or gas marker and operate under the direction of trigger **16**, for example, via electrical connection **18**, such, as a conventional communications cable or wire. For example, in one aspect, delivery device **14** may include a nozzle **17** operatively connected to a supply of marker **15**, for example, a pressurized supply (not shown) of marker **15**. In one aspect, delivery device **14** may include one or more valves (not shown) configured to operate under the influence of trigger **16** and operatively connected to the pressurized supply of marker **15** whereby a pressurized fluid (that is, a liquid and/or gas) can be emitted from nozzle **17** when trigger **16** is actuated.

Trigger **16** may be any electrical device configured to energize or actuate delivery device **14** when activated, as indicated by arrow **19**. For example, trigger **16** may be operatively connected to a power supply (not shown) and, when activated, trigger **16** directs electric power to delivery device **14** to emit marker **15**. Trigger **16** may be any type of conventional switch or activator, such as, a toggle switch. Trigger **16** may be manually activated (including by foot), sound activated, or motion activated, among other means of activation. Electrical connection **18** between trigger **16** and delivery device **14** may be hardwired or wireless, for example, a Bluetooth wireless connection, among other wireless protocols.

In one aspect, trigger **16** may be a trigger adapted to be activated by a noise, for example, a noise having a sound level of about 100 decibels (dB) or above or about 150 dB or above, for instance, a trigger adapted to be activated by the sound of a gunshot.

According to one aspect of the invention, apparatus **10** may also include a sensor **20** configured to detect a presence of perpetrator **12**. Sensor **12** may be an optical sensor or a motion sensor, among others, adapted to detect the presence of or passage of perpetrator **12**. In one aspect, sensor **20** may directly detect the presence or proximity of perpetrator **12** to sensor **20** or delivery device **14**. In another aspect, sensor **20** may indirectly detect the presence or proximity of perpetrator **12** to sensor **20** or delivery device **14**, for example, sensor **20** may detect the movement or displacement of a structure handled by perpetrator **12**, for example, the opening of a door through which perpetrator **12** passes. Sensor **20** may be operatively connected to delivery device **14** and to trigger **16**, for example, via electrical connections **18** and **22**.

According to one aspect of the invention, when trigger **16** is actuated, both sensor **20** and delivery device **14** are activated, but delivery device **14** does not emit marker **15** until sensor **20** detects the presence or passage of perpetrator **12**, for example, the presence or passage of perpetrator **12** in the target area **24** of delivery device **14**. The target area **24** of device **14** is typically the area or volume into which delivery device **14** can deliver marker **15**.

Though not shown in FIG. **1**, trigger **16** and marker deliver device **14** may be proximate each other or remote from each other. For example, marker delivery device **14** may be within 3 feet of trigger **16** or within 500 feet of trigger **16**. In one aspect, marker delivery device **14** may be in visible distance from trigger **16**, that is, within visible distance of an operator actuating trigger **16** whereby the operator can actuate trigger **16** when perpetrator **12** is within target area **24**. However, when sensor **20** is provided, marker delivery device **14** need not be within visible distance of trigger **16** since sensor **20** may determine when perpetrator **12** is within target area **24** before delivery device **14** emits marker **15**.

FIG. **2** is a schematic diagram of another apparatus **30** for tagging a perpetrator (not shown) according to another aspect of the invention. Similar to apparatus **10** shown in FIG. **1**, apparatus **30** includes a marker delivery device **34** configured to mark the perpetrator (not shown) and a trigger **36** configured to actuate the marker delivery device **34**. Apparatus **30** may also include a sensor **40** configured to detect a presence of the perpetrator. Marker delivery device **34**, trigger **36**, and sensor **40** may have all the attributes of marker delivery device **14**, trigger **36**, and sensor **20**, respectively, described above with respect to FIG. **1**. For example, marker device **34** may emit a marker, for example, a solid, a liquid, a gas, or a combination thereof, that contacts the perpetrator and that is detectable, for example, by law enforcement at a later time.

As shown in FIG. **2**, apparatus **30** may be configured into a door **32**, or other means of egress or ingress, of a building or structure **38**, for example, a door of a convenience store, a liquor store, a pawn shop, a restaurant, a bank, a gas station, an office, or another commercial, or residential structure, such as, a home or an apartment. As shown in FIG. **2**, in one aspect, marker delivery device **34** and sensor **40** may be positioned, for example, mounted, in the lower section of door **32** to be the least conspicuous to a perpetrator, though marker delivery device **34** and sensor **40** may be positioned anywhere in door **32** or anywhere in structure **38**, for example, adjacent to door **32**. In one aspect, at least one of marker delivery device **34** and sensor **40** may be positioned anywhere inside or outside of structure **38** and positioned where a perpetrator can be expected to pass. For example, at least one of marker delivery device **34** and sensor **40** may be positioned

outside of structure **38**, for example, in a post, stanchion, or housing (not shown) positioned inside, outside, or adjacent to door **32**. In one aspect, the post, stanchion, and/or housing may be suitably camouflaged or concealed to minimize or prevent detection by passersby, that is, potential perpetrators or non-potential perpetrators.

A shown in FIG. **2**, in one aspect, trigger **36** may be remotely positioned from delivery device **34**, and, for example, substantially concealed from view. For example, trigger **36** may be positioned beneath a counter **42** or beneath or behind another structure, such as, a cash register, a safe, a drawer, a wall, or a barrier, among others. Again, trigger **36** may communicate with delivery device **34** and/or sensor **40** by means of one or more wires **44** or wirelessly, as is conventional.

FIG. **3** is a schematic illustration of another apparatus **50** for tagging a perpetrator (not shown) according to another aspect of the invention. Similar to apparatus **10** shown in FIG. **1** and to apparatus **30** shown in FIG. **2**, apparatus **50** includes a marker delivery device **54** configured to mark the perpetrator (not shown) and a trigger **56** configured to actuate the marker delivery device **54**. Apparatus **50** may also include a sensor **60** configured to detect a presence of the perpetrator. Marker delivery device **54**, trigger **56**, and sensor **60** may have all the attributes of marker delivery device **14**, trigger **36**, and sensor **20**, respectively, described above with respect to FIG. **1**. For example, market device **54** may emit a marker, for example, a solid, a liquid, a gas, or a combination thereof, that contacts perpetrator and that is detectable at a later time.

As shown in FIG. **3**, apparatus **50** may be configured into a door **52**, or other means of egress or ingress, of a building or structure **58**. As shown in FIG. **2**, though aspects of the invention may be housed in a housing (for example, in a box or container), in one aspect, marker delivery device **54** and sensor **60** may be mounted in the lower section of door **52**, though marker delivery device **54** and sensor **60** may be positioned anywhere in door **52** or anywhere in structure **58**, for example, adjacent to door **52**, or anywhere inside or outside of structure **38**, as described above with respect to apparatus **30** in FIG. **2**.

FIG. **4** is a detailed schematic illustration of the components of apparatus **50** shown in FIG. **3** identified as Detail **4** in FIG. **3**. Similar to apparatus **10** shown in FIG. **1** and apparatus **30** shown in FIG. **2**, apparatus **50** includes a marker delivery device **54** configured to mark the perpetrator (not shown) and a trigger **56** (see FIG. **3**) configured to actuate the marker delivery device **54**. Apparatus **50** may also include a sensor **60** configured to detect a presence of the perpetrator. Marker delivery device **54**, trigger **56**, and sensor **60** may have all the attributes of marker delivery device **14**, trigger **36**, and sensor **20**, respectively, described above with respect to FIG. **1**. For example, marker device **54** may emit a marker, for example, a solid, a liquid, a gas, or a combination thereof, that contacts perpetrator and that is detectable at a later time.

As shown in FIG. **4**, according to one aspect of the invention, marker delivery device **54** and sensor **60** may be housed in door **52**, for example, in a lower panel of door **52**. In one aspect, marker delivery device **54** may comprise multiple components, for example, a canister, supply, or tank **72** containing the marker, for example, a pressurized supply of canine detectable scent; a delivery line or hose **74** operatively connected to canister **72**; a valve **76** adapted to control the flow of marker from canister **72**; and a nozzle **78** mounted to delivery line **74** and adapted to emit marker **80** to a target area, as described herein, for example, as a mist or spray. Though in FIG. **4** nozzle **78** is shown directing marker **80** downward, it is to be understood that this illustration of the orientation of nozzle **78** in FIG. **4** is provide to facilitate illustration of an aspect of invention only. It should be understood that, though nozzle **78** may direct marker **80** in a downward direction, nozzle **78** typically directs marker **80** in a substantially horizontal, lateral, or upward direction, for example, in a direction substantially perpendicular to door **52** in order to contact the perpetrator (not shown) as intended, and disclosed herein.

According to aspects of the invention, the regulation or control of valve **76**, and the flow of marker **80**, may typically be automatedly regulated or controlled. For example, in one aspect, the operation of valve **76** may typically be automated and controlled by one or more mechanisms or controllers **82** via connection **84**. Connection **84** may be an electrical connection (wired or wireless) or a mechanical connection; for example, connection **84** may transmit an electrical control signal to valve **76** or be a mechanical interface with valve **76**, such as, a hydraulic line or pneumatic line or mechanical linkage.

Controller **82** may receive input from switch **60**, for example, via switch interface **86**, and/or from trigger **56**, for example, via trigger interface **88**. Switch **60** may be any conventional switch mechanism adapted to provide a signal to controller **82** when switch **60** is activated. In one aspect, switch **60** may be a spring-biased switch having a plunger **61** that is tripped, deflected, or otherwise activated when plunger **61** contacts or loses contact with mating structure **58**, for example, the door jam of door **52**. For example, when plunger **61** loses contact with door jam **58**, this indicates that door **52** is being opened and the perpetrator is leaving, for example, the liquor store. According to one aspect, this indication from switch **60** that door **52** has been opened may be relayed to controller **82** via switch interface **86**. Switch interface **86** may be mechanical or electrical. For example, switch interface **86** may comprise an electrical relay that receives a signal, either mechanical or electrical, from switch **60** and relays the signal to controller **82** indicting that door **52** has been opened. In another aspect, switch interface **86** may be a mechanical interface, for example, one or more cams, levers, linkages, motors, hydraulics, or pneumatics and the like, and combinations thereof, that receives a mechanical signal from switch **60** and relays the signal to controller **82**, either mechanically or electrically. Switch **60** may also communicate directly with controller **82**. Again, according to aspects of the invention, controller **82** may receive a signal from switch **60** that door **52** has been opened, for example, by the perpetrator.

In addition, according to aspects of the invention, controller **82** may receive a signal from trigger **56** indicating, for example, via trigger interface **88**, that marker delivery device **54** may be activated, for example, since the trigger operator (for example, a convenience store attendant or bank teller) has identified a perpetrator or potential perpetrator that may be leaving, for example, the convenience store, through door **52**. Trigger interface **88** may typically include a receiver **90**, for example, a wired or wireless receiver, that receives a signal from trigger **56**, for example, over wire **44**. Again, wire **44** may represent wireless communication between trigger **56** and receiver **90**. Trigger interface **88** may include conventional electrical or mechanical components adapted to receive, condition, and/or transmit a corresponding signal from trigger interface **88** to controller **82**. For example, trigger interface **88** may include a transmitter **94** adapted to transmit a signal corresponding to a signal received from trigger **56** to controller **82**. Trigger **56** may also communicate directly with controller **82**. Again, according to aspects of the invention, controller **82** may receive a signal from trigger **56** via trigger interface **88** indicating that marker delivery device **54** can be activated and deliver marker **80**, for example, when switch **60** indicates that door **52** has been opened, for

example, by the perpetrator. The system shown in FIG. **4** may also include a power supply, for example, one or more batteries or solar cells or a connection to the electrical grid, illuminated indicators, and the like, but these are not shown in FIG. **4** to facilitate illustration of aspects of the invention.

The following example describes a typical operation of aspects of the invention with the assistance of the apparatus illustrated in FIGS. **3** and **4**. According to one aspect of the invention, when a convenience store employee recognizes the presence of a perpetrator or a suspected perpetrator in the convenience store, the employee activates switch **56**. Switch **56** either by wire **44** or wirelessly transmits a signal to marker delivery device **54**, for example, via trigger interface **88** and controller **82**, activating or "arming" marker delivery device **54** to emit marker **80**. When the perpetrator exits the convenience store via door **52**, the disengagement of switch **60** from door jam **58** causes switch **60** to transmit a signal to marker delivery device **54**, for example, via switch interface **86** and controller **82**, to activate marker delivery device **54** and deliver marker **80** by opening, for example, at least temporarily, valve **76**. According aspects of the invention, marker **80** may be emitted for a time duration as short as 0.5 seconds, but is typically emitted for a duration of about 1 second to about 5 seconds, after which valve **76** is closed.

Typically, controller **82** activates marker delivery device **64** only when marker delivery device **54** has been activated, or otherwise prompted, by the actuation of trigger **56**. For example, when controller **86** has received a signal from trigger **56**, controller **82** will then await receipt of a signal from switch **60** before controller **82** activates or opens valve **76**, for example, via electrical connecting **84**. The opening of valve **76** allows marker **80**, for example, a pressurized canine detectable scent marker **80** from cylinder **72**, to pass through conduit **74** and be discharged from nozzle **78** and onto the perpetrator.

According to one aspect of the invention, marker **80** may be delivered covertly, that is, without the perpetrator's detection or knowledge. In another aspect, marker **80** may be delivered overtly, for example, with the perpetrator's detection and knowledge, for example, accompanied by an alarm, a siren, flashing lights, or another distress signal or indicator.

According to aspects of the invention, the marker **80** the perpetrator is tagged with is detectable and/or identifiable at a later time, for example, 10 minutes later, a week later, or even years later. As noted previously, in one aspect, the marker comprises a canine-detectable scent, for example, a scent that a dog, for example, a bloodhound, can detect and by which the perpetrator can be identified to authorities. In another aspect, the maker may be fluorescent and only be detectable when exposed to, for example, a black light. When the marker is an electronic device, for example, a sensor or detectable device on a microchip, electrical scanners can be used to detect the electronic device marker. Other markers and means of detecting markers will be apparent to those of skill in the art.

Aspects of the present invention can also be implemented with other conventional security systems or devices, for example, with closed-circuit television (CCTV) monitoring systems, to enhance the likelihood of apprehending the perpetrator.

Aspects of the present invention provide apparatus and methods for tagging a perpetrator, for example, a perpetrator robbing a convenience store, liquor store, bank, gas station, office, or other commercial establishment, or a home or residence. Of course, aspect of the invention may be used in any location, facility, or venue to "tag" individuals, articles, or merchandise, covertly or overtly. For example, at a public event, attendees can be tagged with a marker confirming payment of an entrance fee, allowing egress and ingress with confirmation of the presence of the marker. In another example, merchandise may be tagged with a marker to confirm that the merchandize has been paid for. Other applications of aspects of the invention will be apparent to those of skill in the art. As will be appreciated by those skilled in the art, features, characteristics, and/or advantages of the various aspects described herein, may be applied and/or extended to any embodiment (for example, applied and/or extended to any portion thereof).

Although several aspects of the present invention have been depicted and described in detail herein, it will be apparent to those skilled in the relevant art that various modifications, additions, substitutions, and the like can be made without departing from the spirit of the invention and these are therefore considered to be within the scope of the invention as defined in the following claims.

The invention claimed is:

1. A method for tagging a perpetrator with a marker, the method comprising:

actuating a trigger positioned remotely of a marker delivery device associated with a door, thereby arming the marker delivery device;

sensing a presence of a perpetrator in a target area of the marker delivery device with a sensor; and

when the presence of the perpetrator is detected by the sensor and when the marker delivery device is armed, contacting the perpetrator in the target area with a marker emitted by the armed marker delivery device.

2. The method as recited in claim **1**, wherein the marker comprises one of a fluid marker and a solid marker.

3. The method as recited in claim **1**, wherein the marker comprises a canine-detectable scent.

4. The apparatus of claim **1**, wherein the trigger comprises a manual or foot-operated trigger.

5. The method as recited in claim **1**, wherein actuating the trigger comprises actuating the trigger by noise.

6. The method as recited in claim **5**, wherein the noise comprises a gunshot.

7. An apparatus for tagging a perpetrator, the apparatus comprising:

a marker delivery device;

a sensor adapted to sense the presence of the perpetrator in a target area of the marker delivery device; and

a trigger configured to arm the marker delivery device, the trigger positioned remote from the marker delivery device;

wherein, when the marker delivery device is armed and when a perpetrator in the target area is detected by the sensor, a marker is emitted on the perpetrator in the target area by the armed marker delivery device.

8. The apparatus as recited in claim **7**, wherein the marker delivery device comprises one of a fluorescent marker delivery device and a canine detectable-scent delivery device.

9. The apparatus as recited in claim **7**, wherein the marker delivery device is positioned in a vicinity of a door.

10. The apparatus as recited in claim **7**, wherein the marker delivery device is positioned in a door.

11. The apparatus as recited in claim **10**, wherein the marker delivery device is positioned in a lower section of the door.

12. The apparatus as recited in claim **10**, wherein the marker delivery device positioned in the door comprises a marker supply, a valve operatively connected to the marker supply, and a nozzle operatively connected to the valve and adapted to emit marker to the target area.

13. The apparatus as recited in claim 7, wherein the trigger is positioned in a building, and wherein the marker delivery device is positioned outside the building.

14. The apparatus as recited in claim 13, wherein the marker delivery device is positioned outside the building in one of a post, stanchion, and a housing.

15. The apparatus as recited in claim 7, wherein the sensor is positioned in a door.

16. The apparatus as recited in claim 15, wherein the sensor is positioned in a lower section of the door.

17. The apparatus as recited in claim 7, wherein the marker comprises one of a fluid marker and a solid marker.

18. The apparatus of claim 7, wherein the trigger comprises a trigger activated by noise.

19. The apparatus of claim 18, wherein the noise comprises a gunshot.

20. The apparatus as recited claim 7, wherein the sensor comprises one of an optical sensor and a motion sensor.

* * * * *