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(54) **SECURITY HOOD FOR HANDGUN  
HOLSTERS AND THE LIKE**

**Publication Classification**

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(57) **ABSTRACT**

A security hood assembly for a holster includes a hood that is movably supported in association with a holster body so that the hood extends over a portion of a holstered handgun or other service item when the hood is in a closed position, to prevent unauthorized removal of the service item. A lever may be operably coupled to the hood for driving the hood toward an open position, to allow the service item to be removed from the holster. In some embodiments, a latch mechanism releasably engages when the hood is in the closed position to prevent the hood from being opened through direct manipulation of the hood. The hood is preferably formed of a substantially rigid material, such as injection molded plastic. Holsters including the security hood assembly may also include internal retention devices, hood biasing mechanisms, and electronic devices responsive to opening of the hood.

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**Related U.S. Application Data**

(60) Provisional application No. 60/493,943, filed on Aug.  
7, 2003.

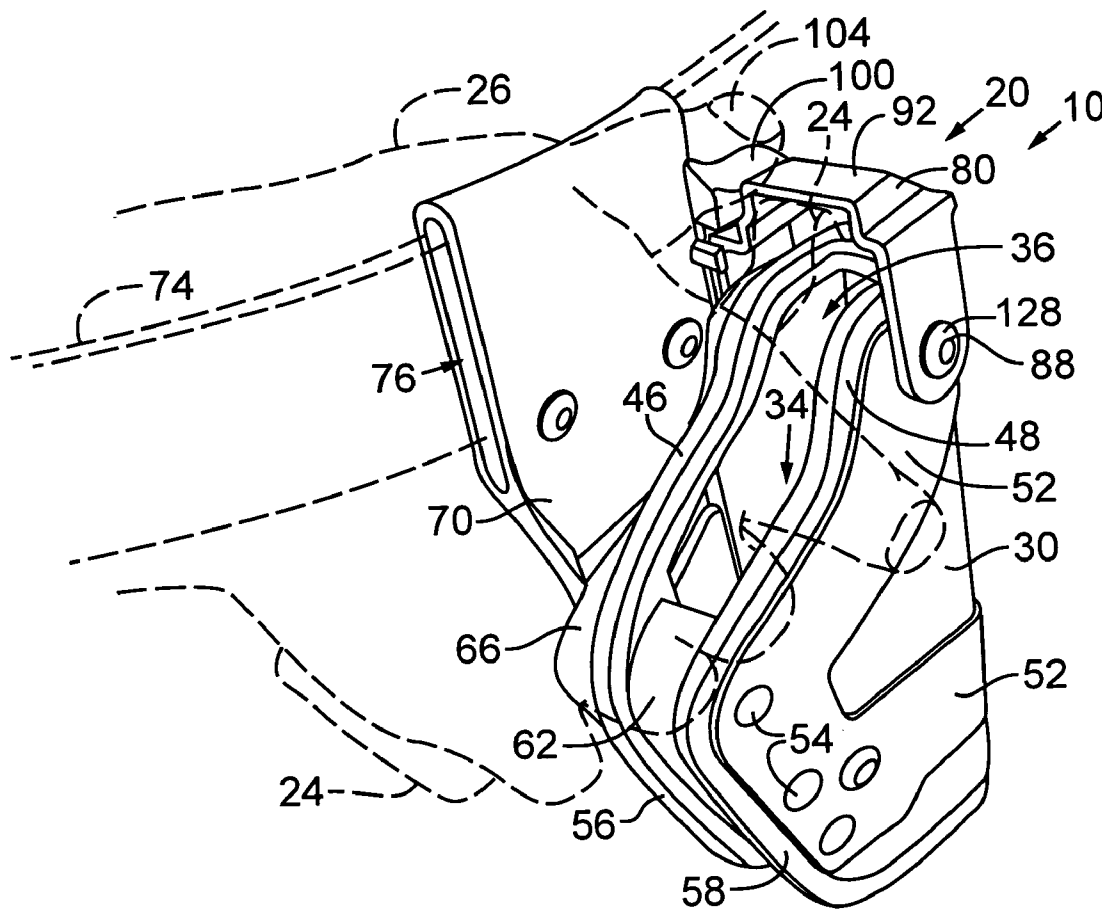


FIG. 1

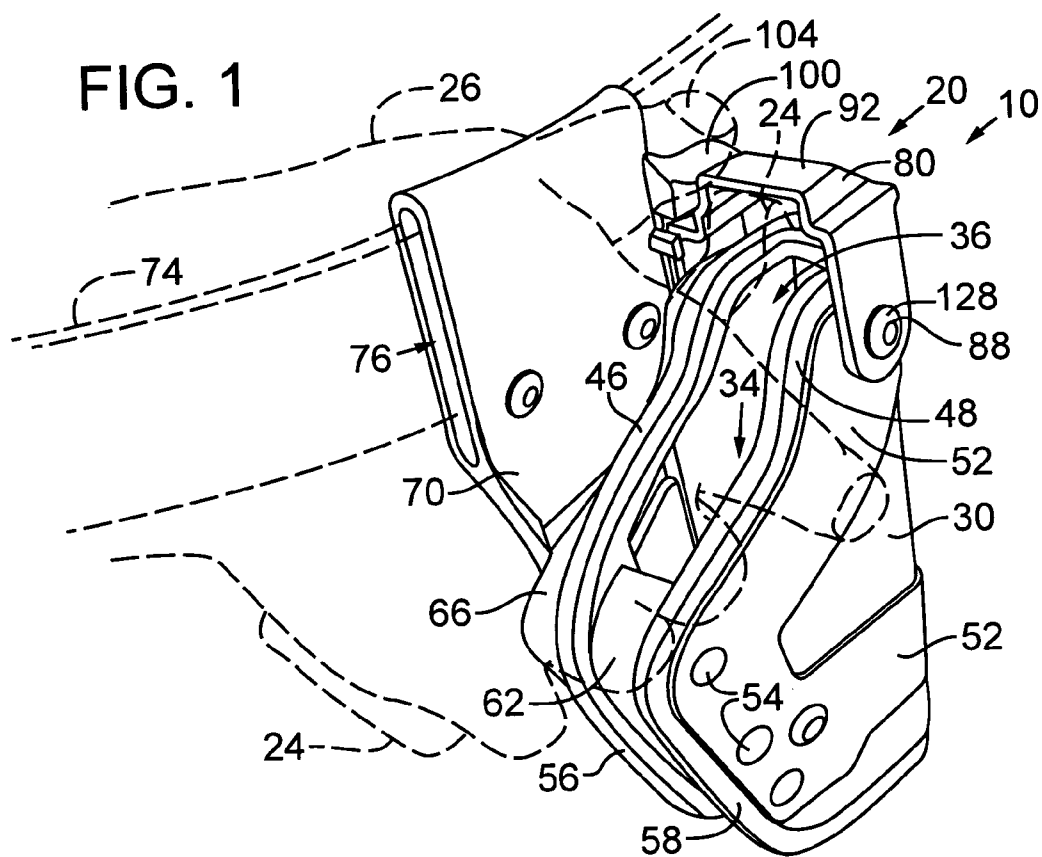
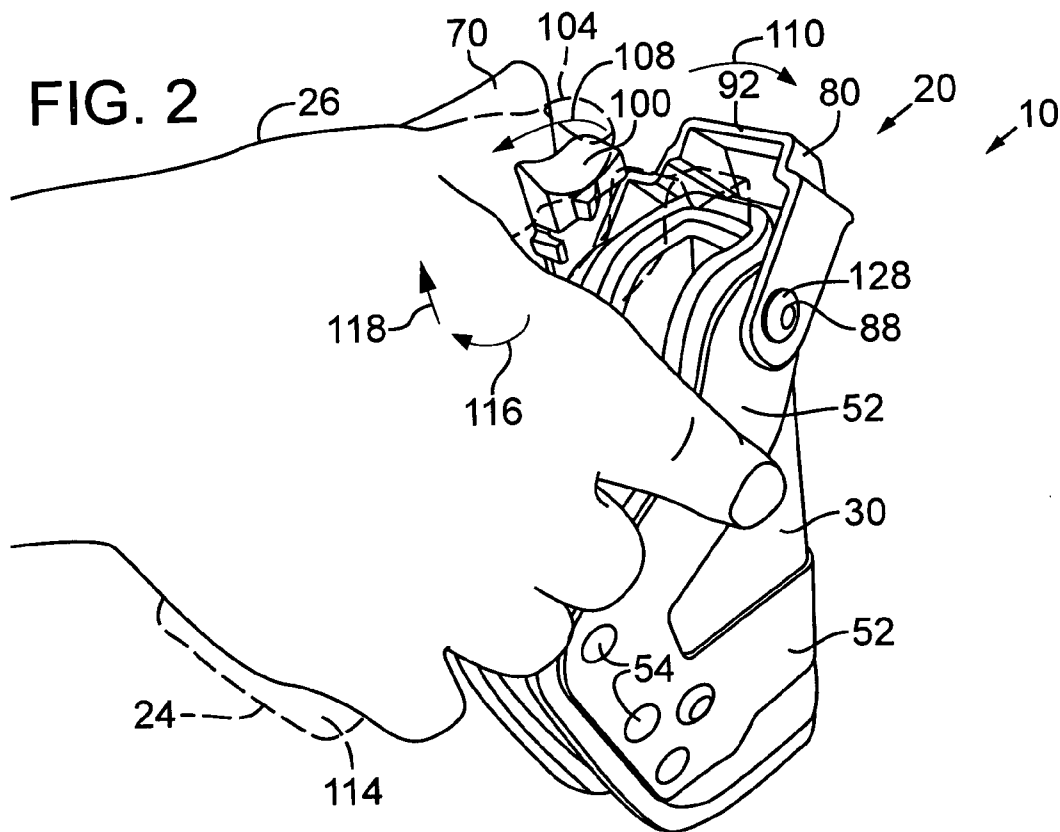
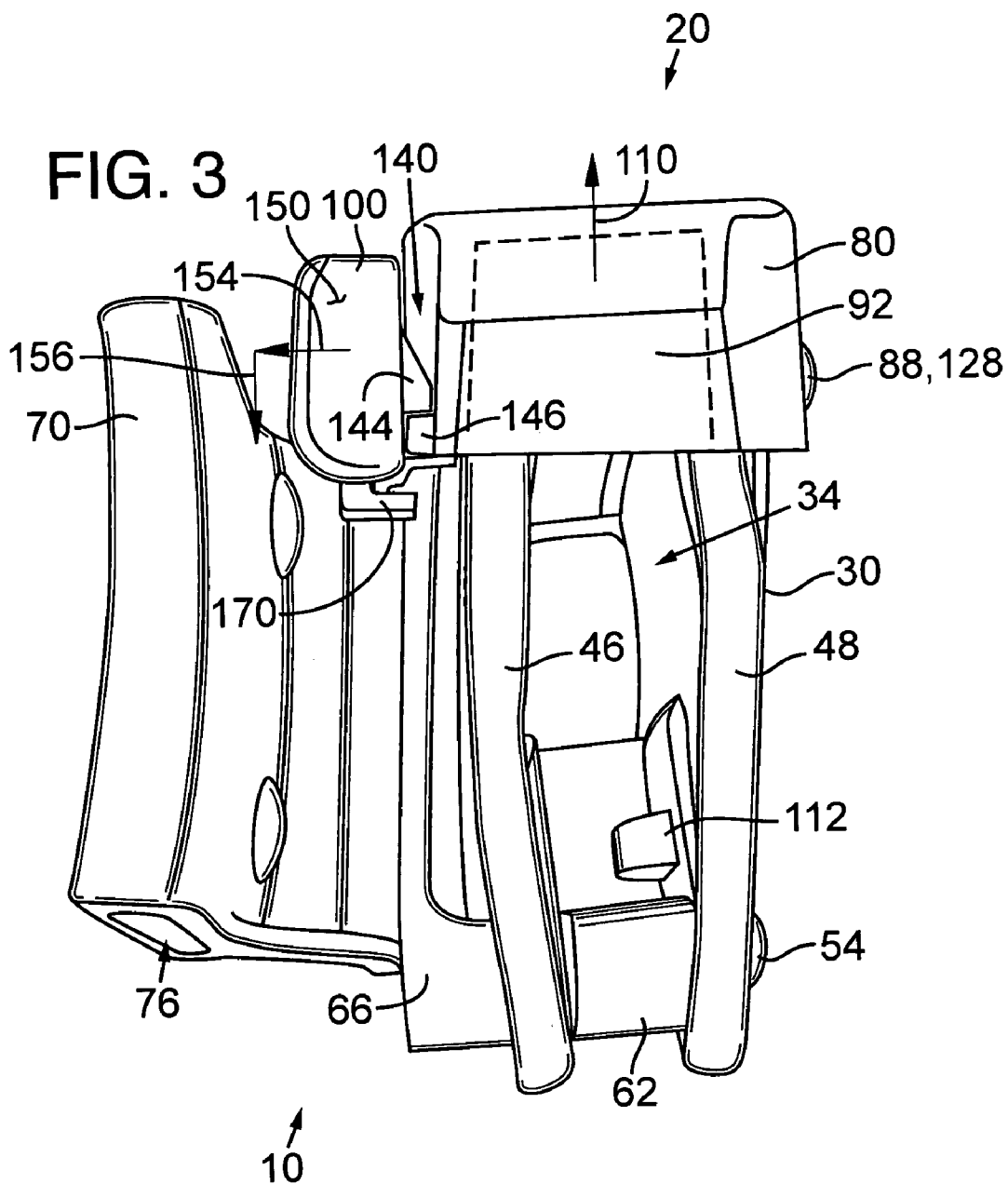


FIG. 2





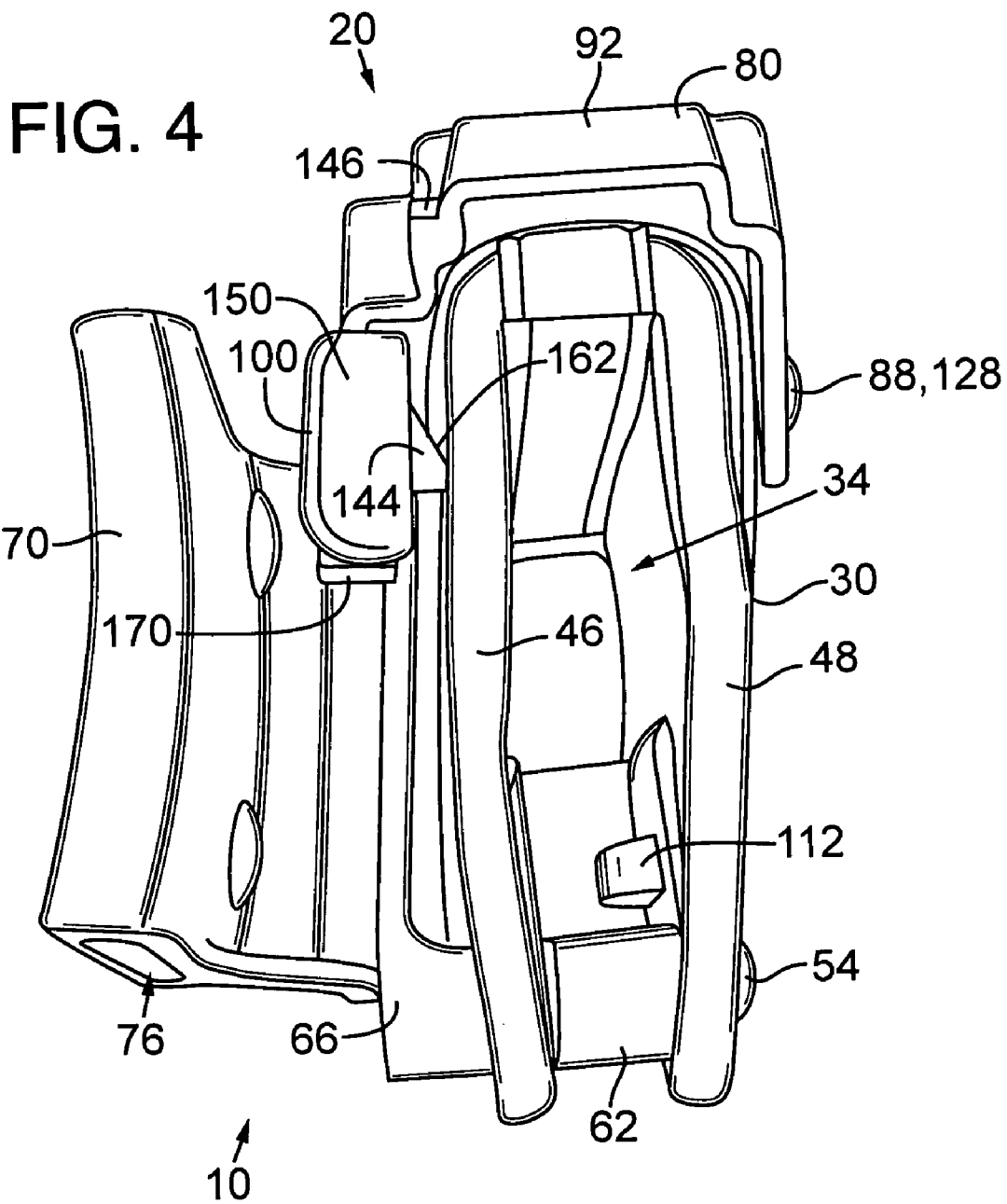
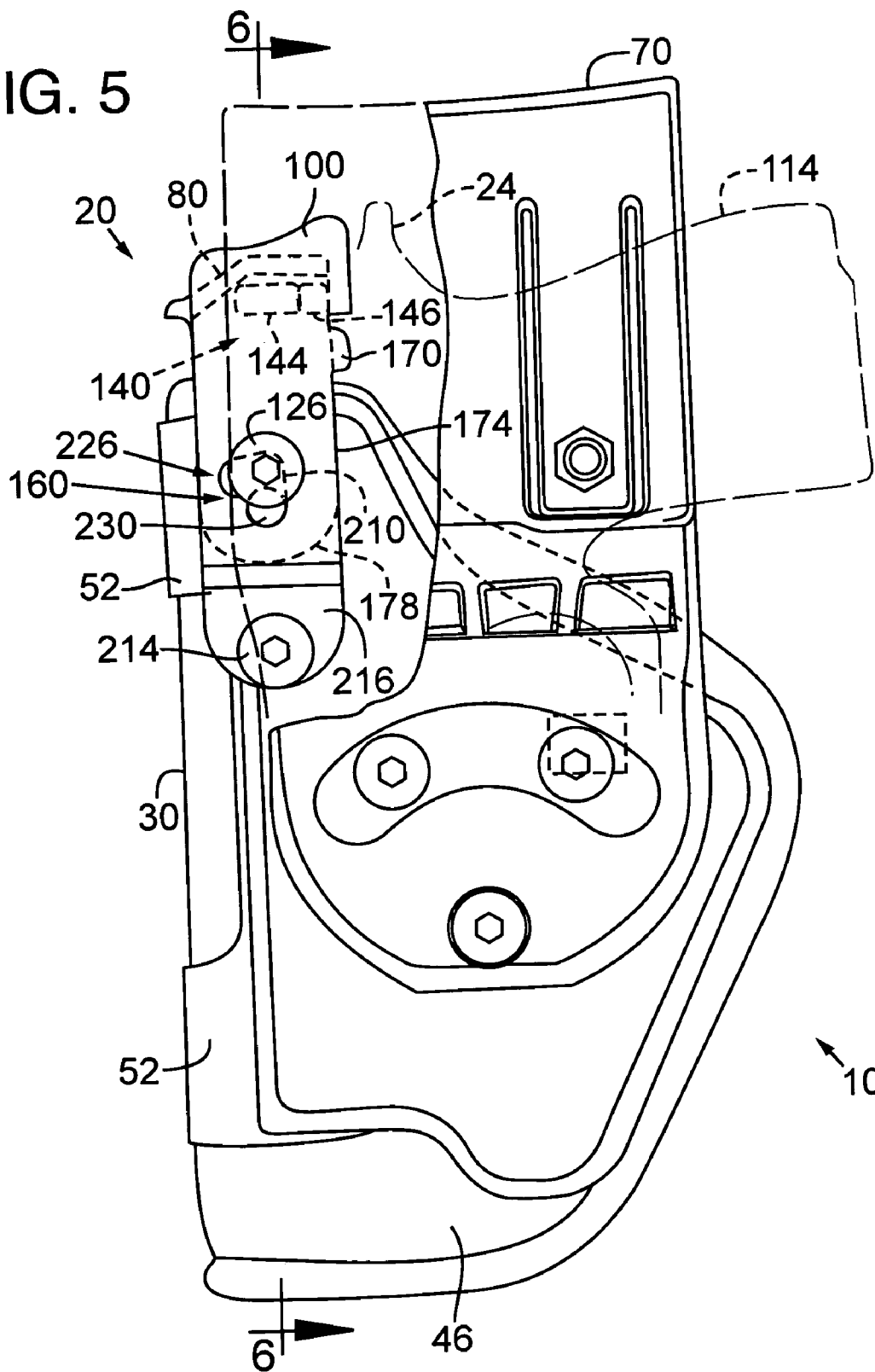


FIG. 5



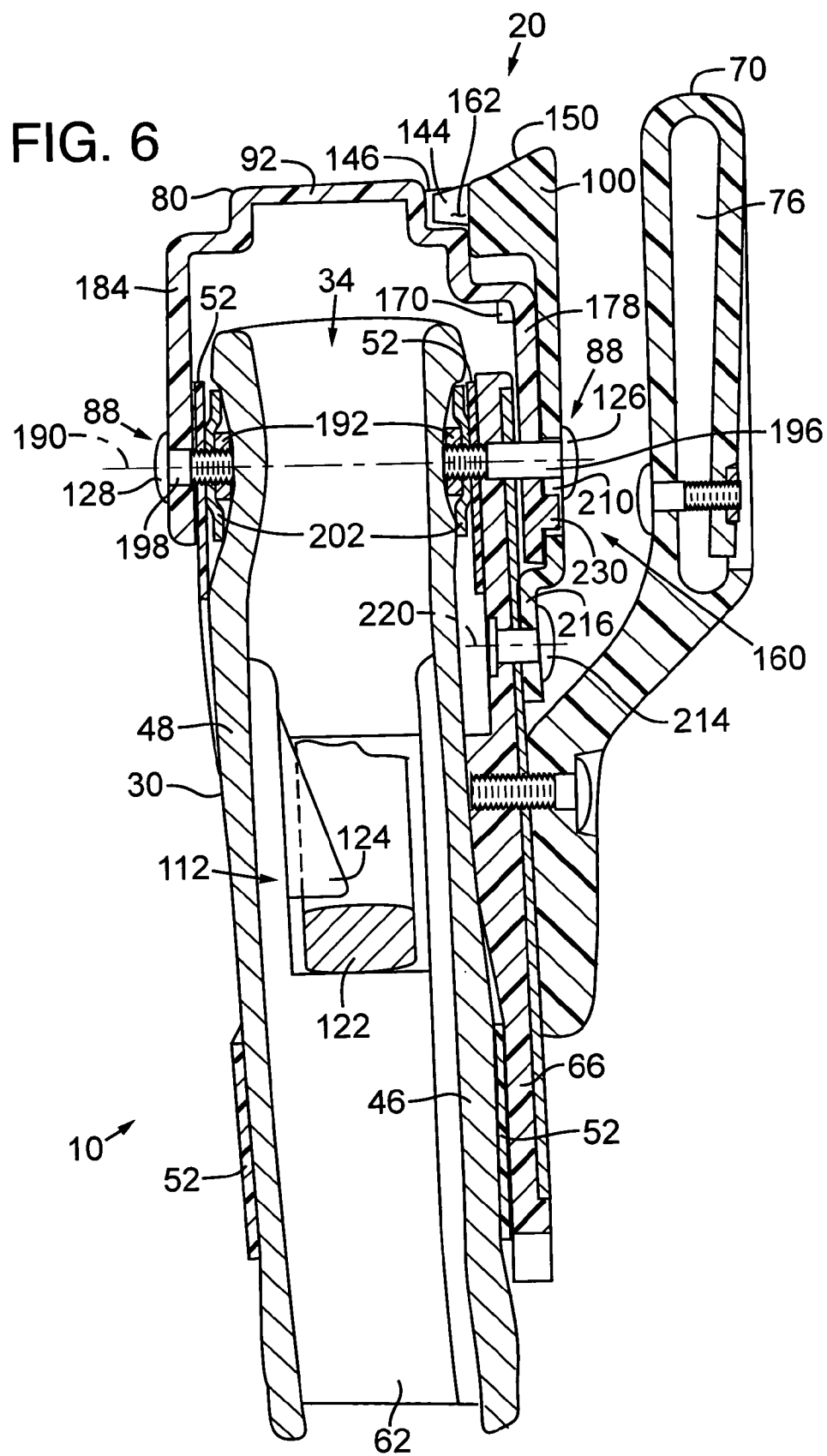
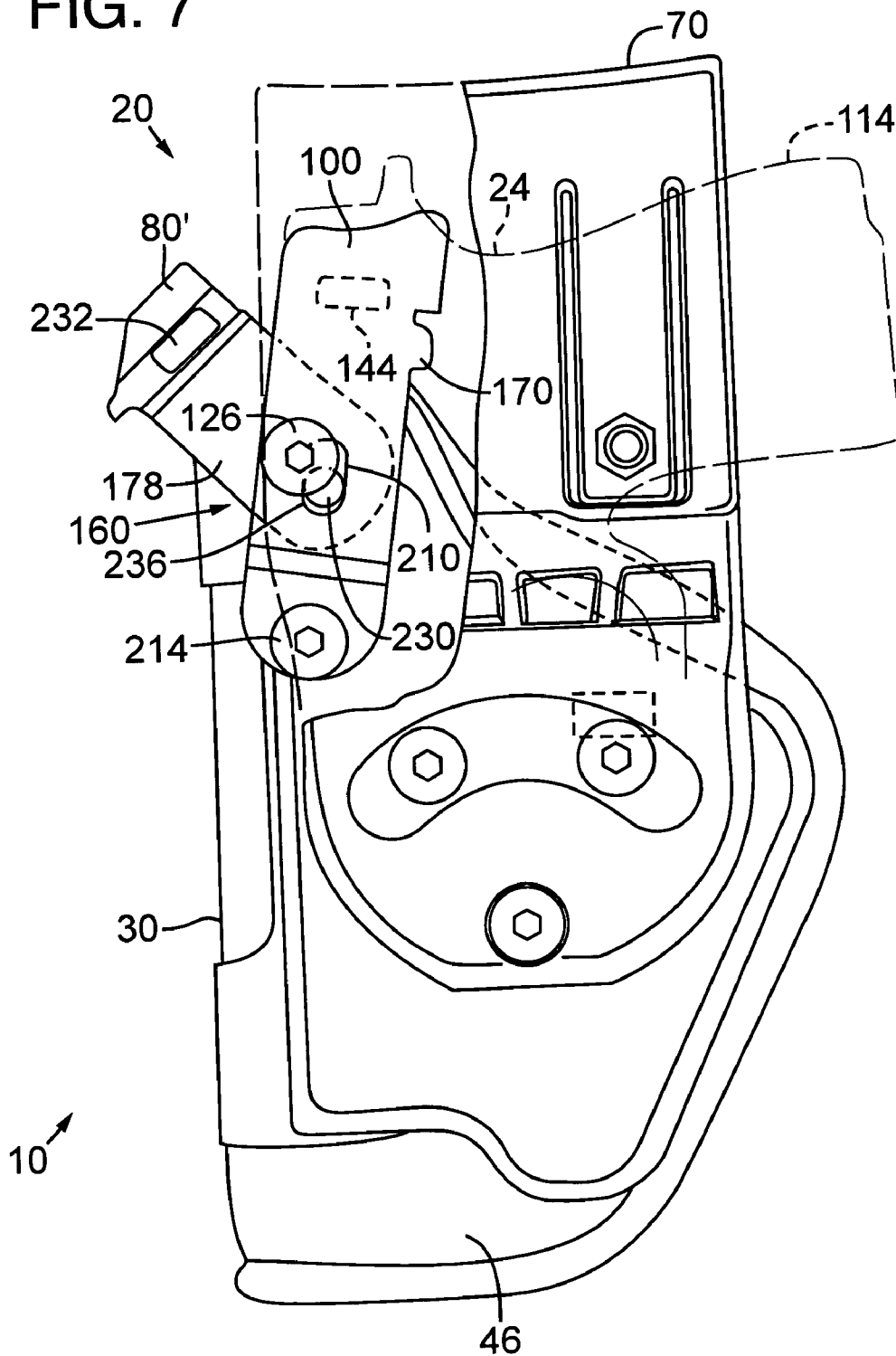


FIG. 7



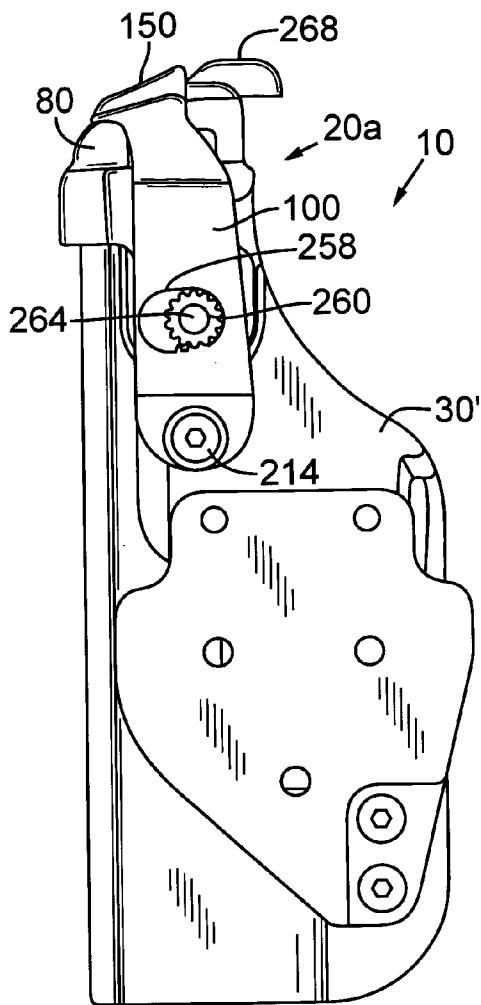


FIG. 8

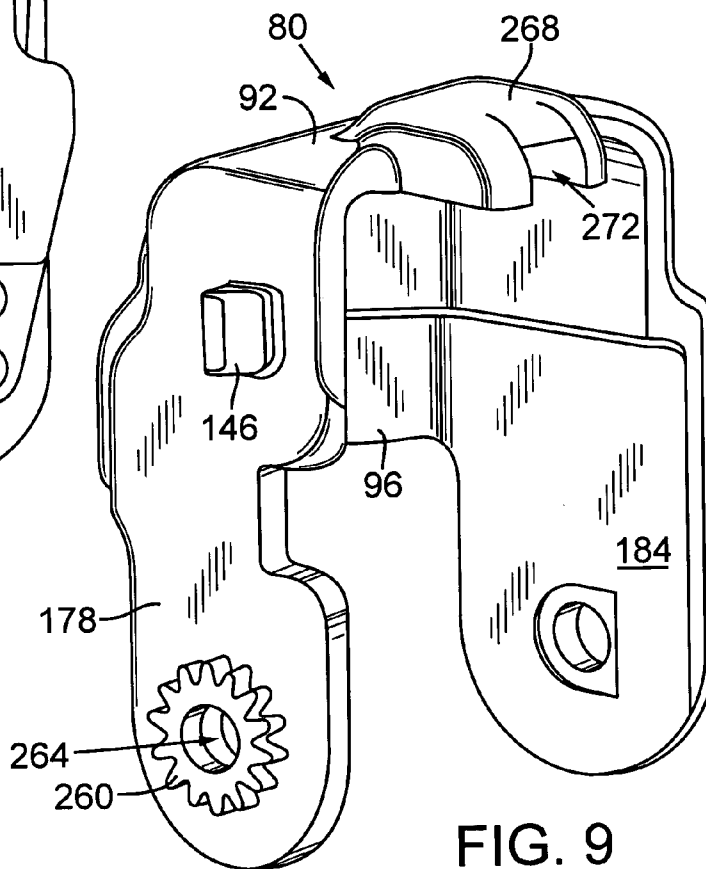
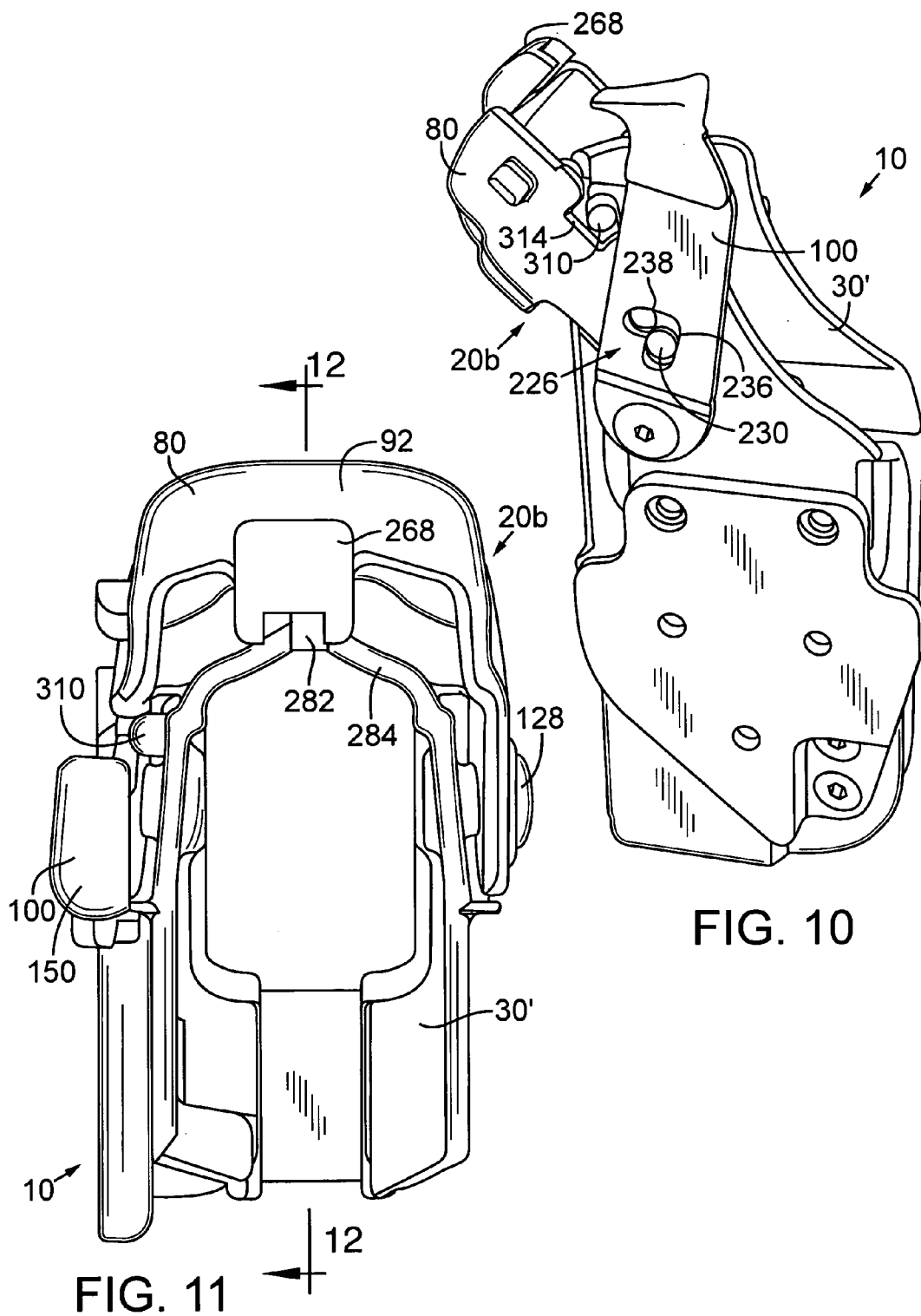


FIG. 9





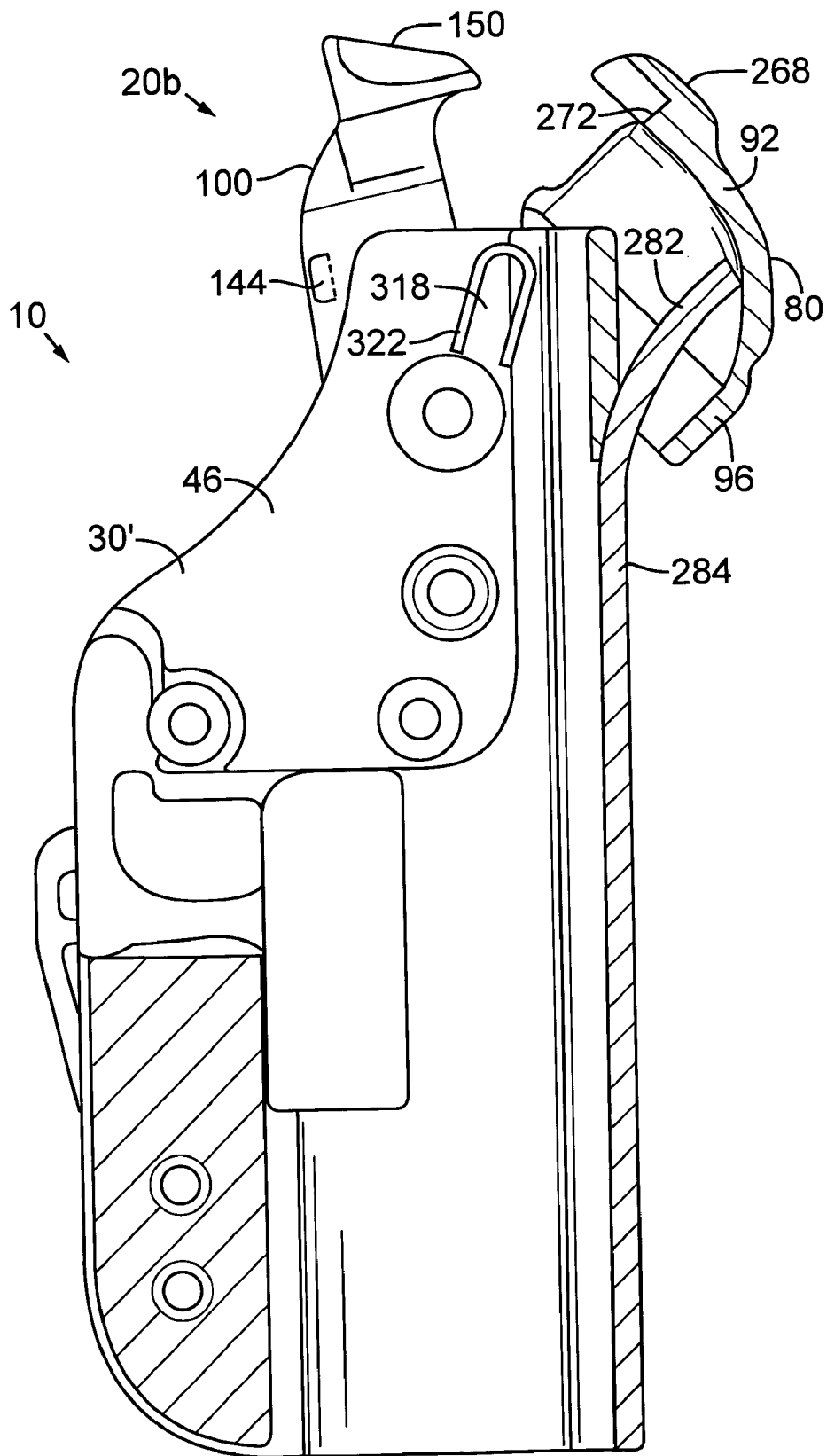
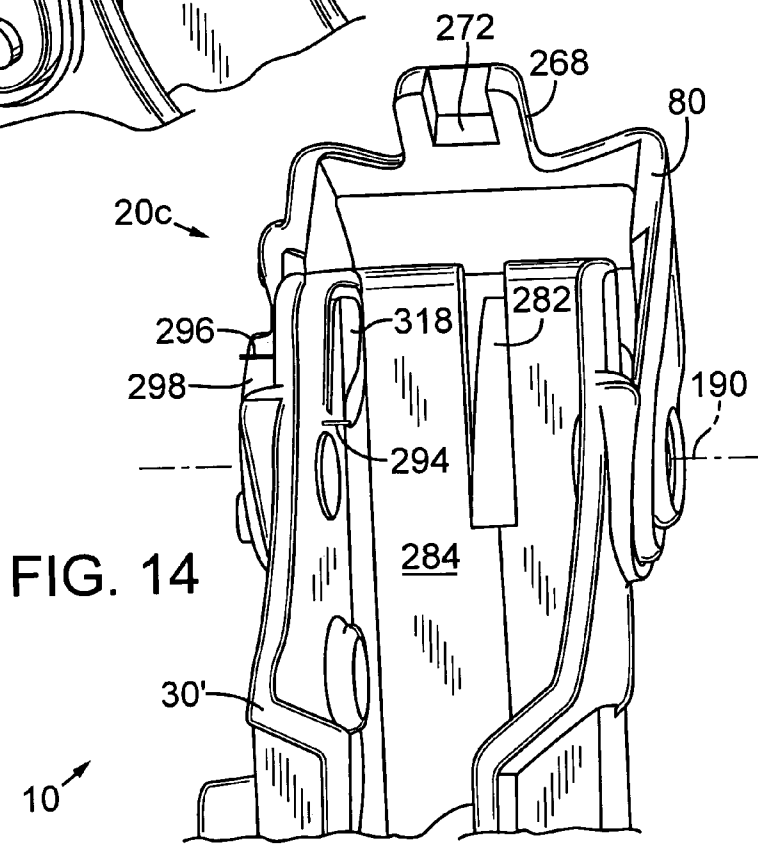
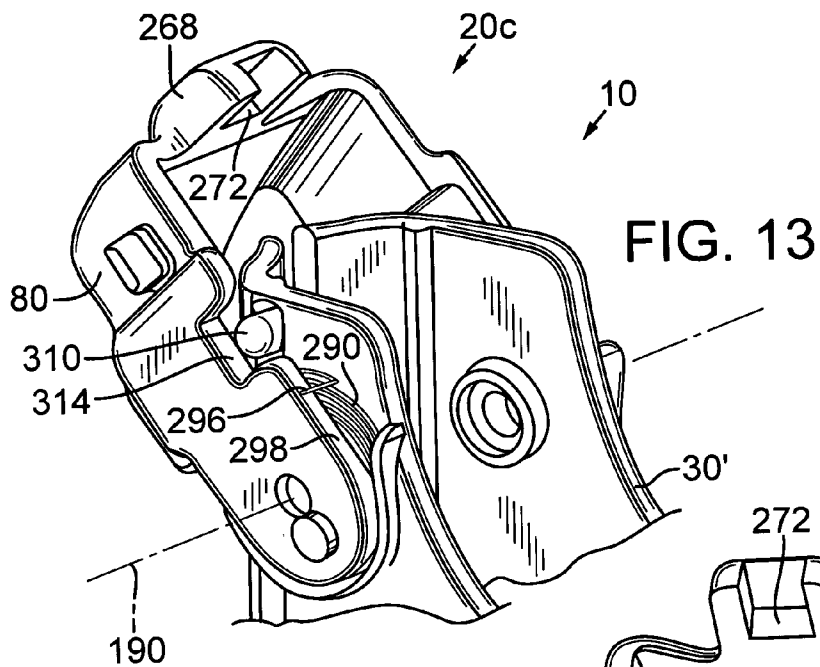


FIG. 12



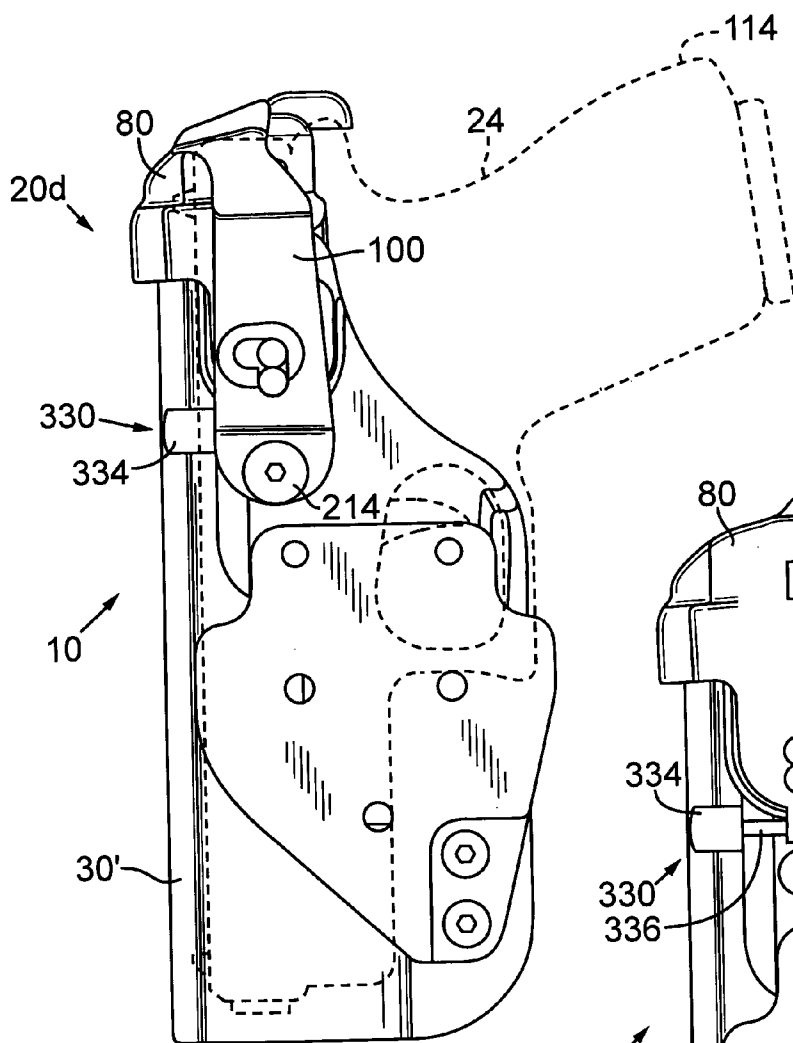


FIG. 15

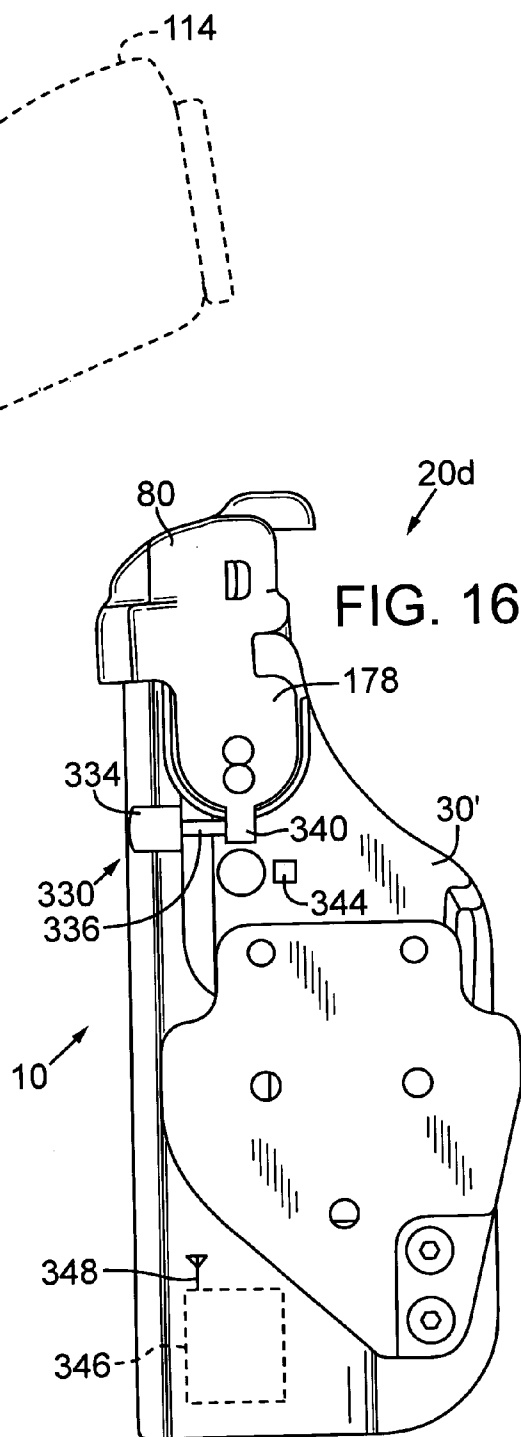


FIG. 16

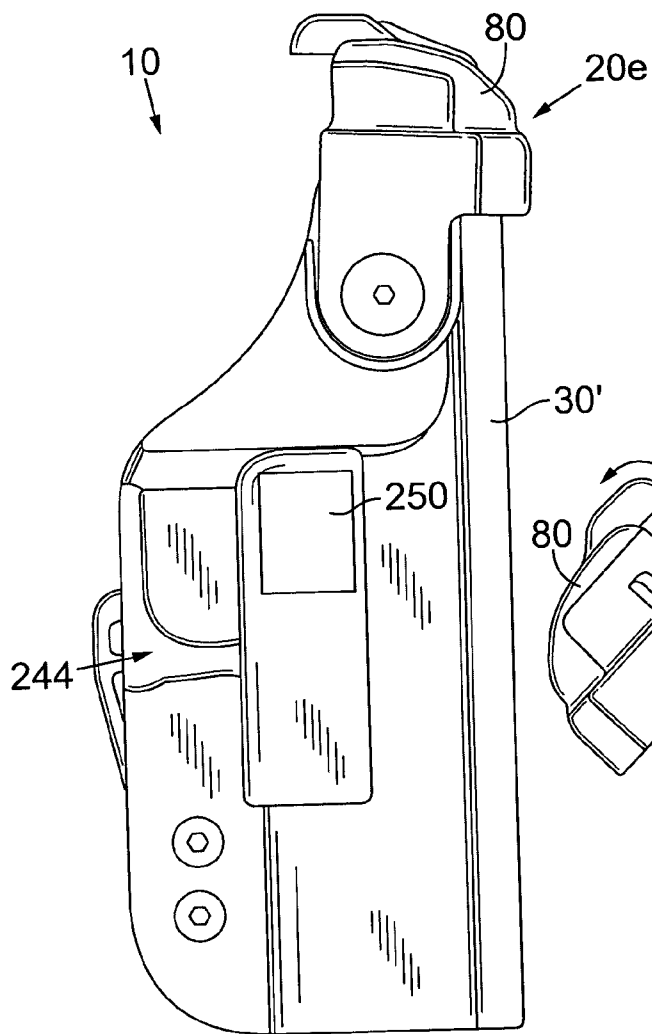


FIG. 17

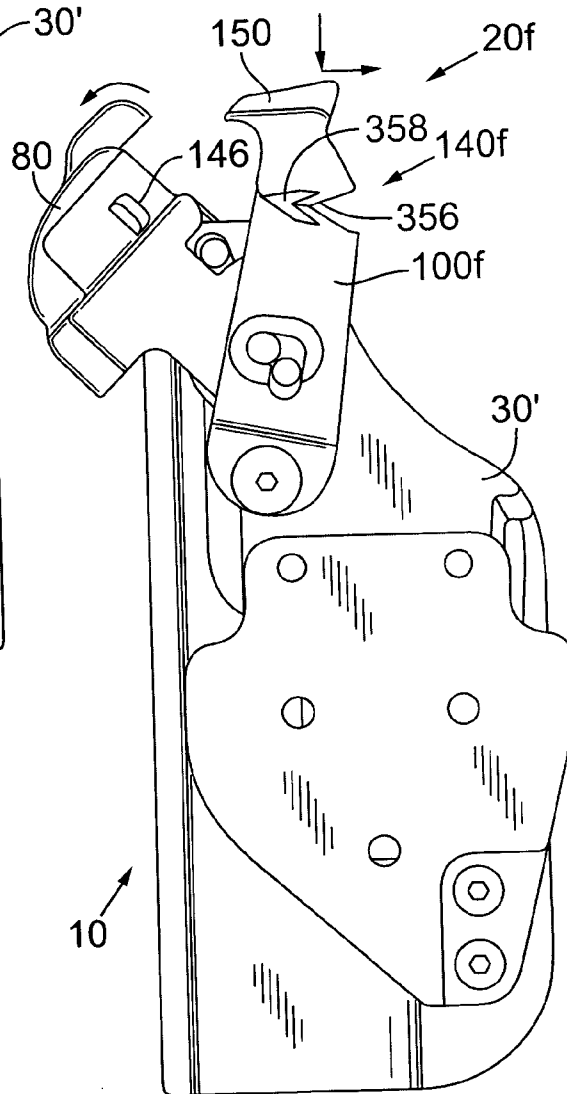
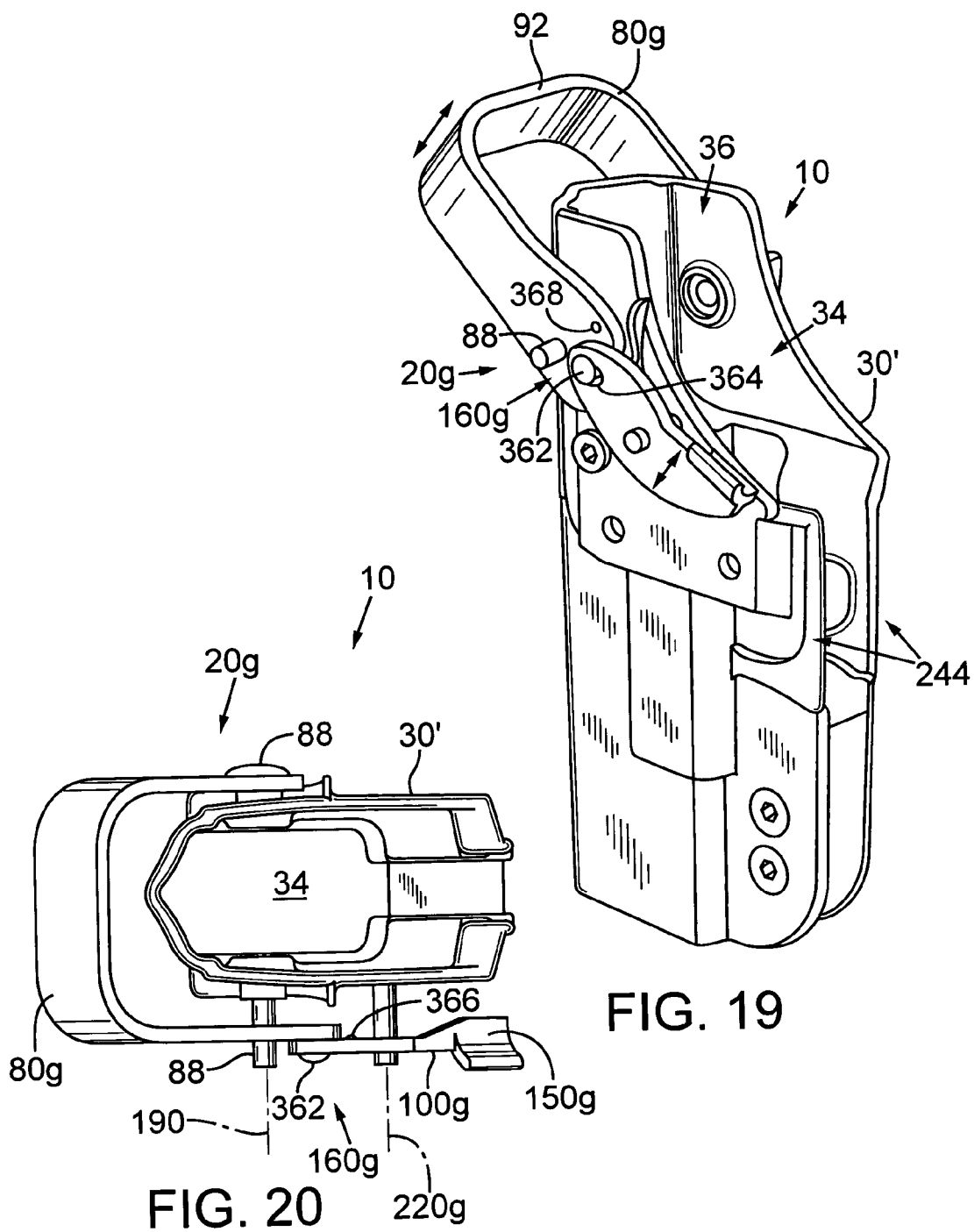


FIG. 18



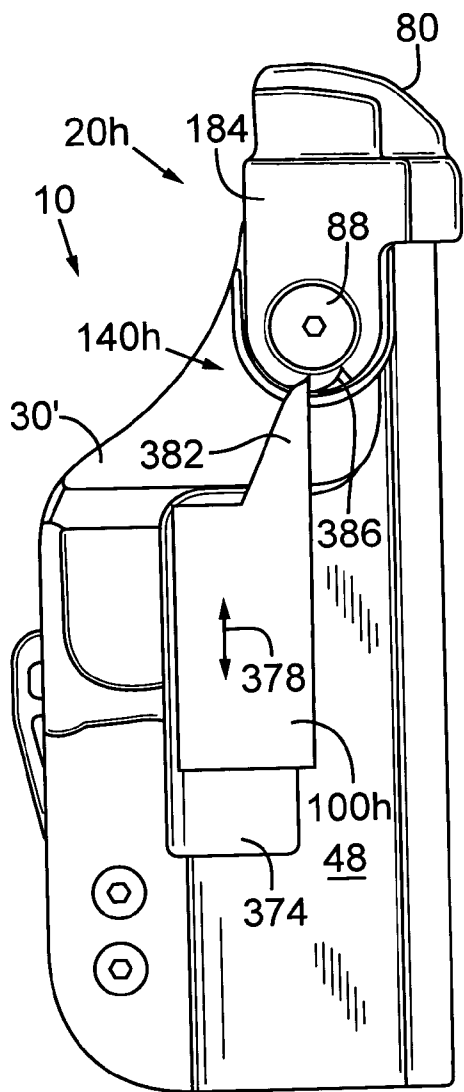


FIG. 21

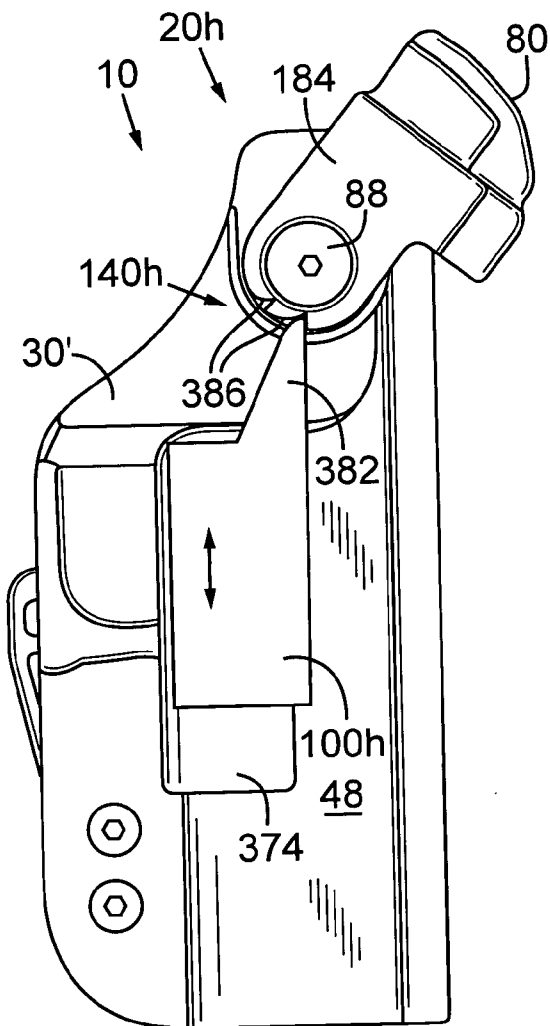


FIG. 22

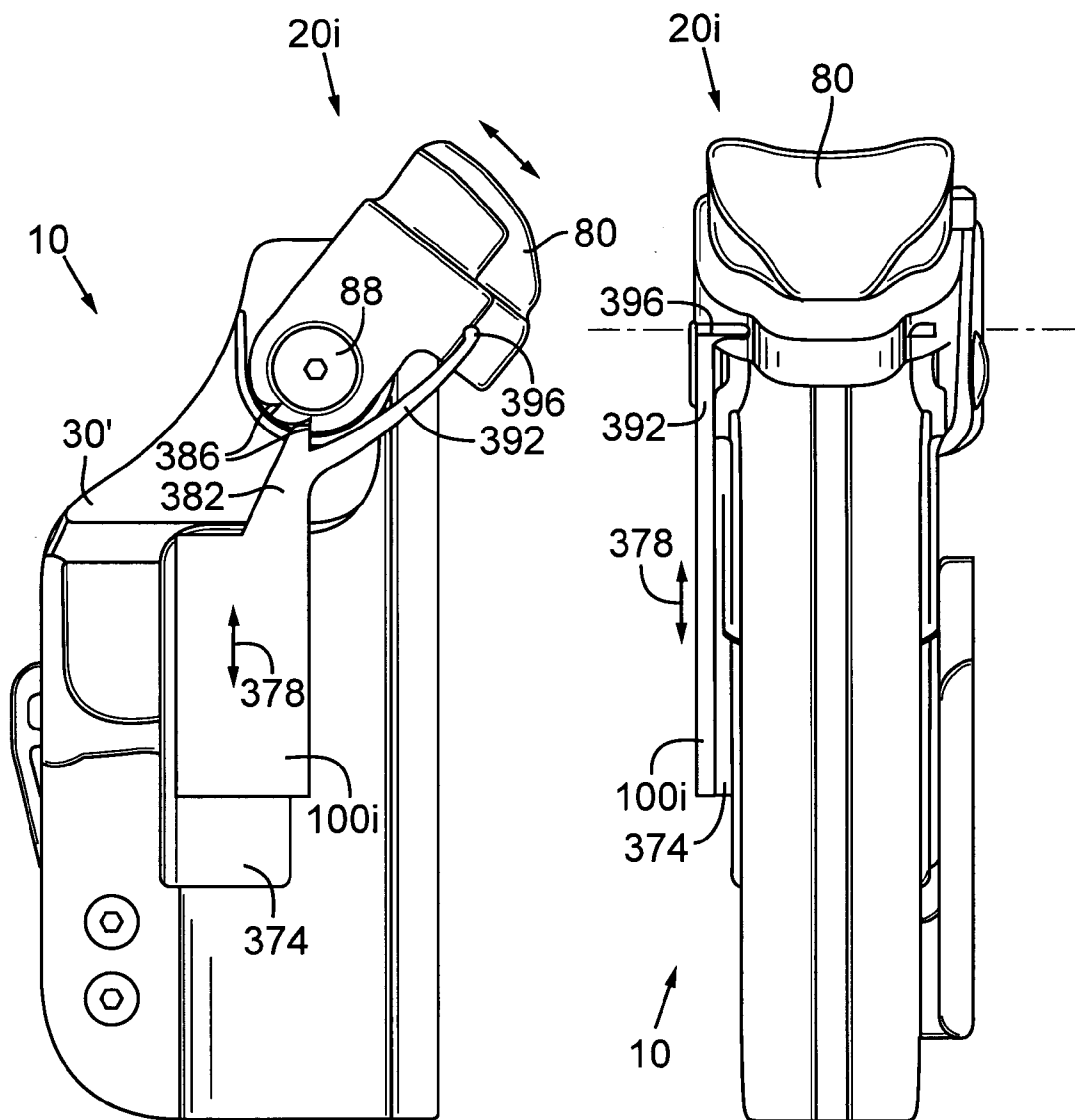


FIG. 23

FIG. 24



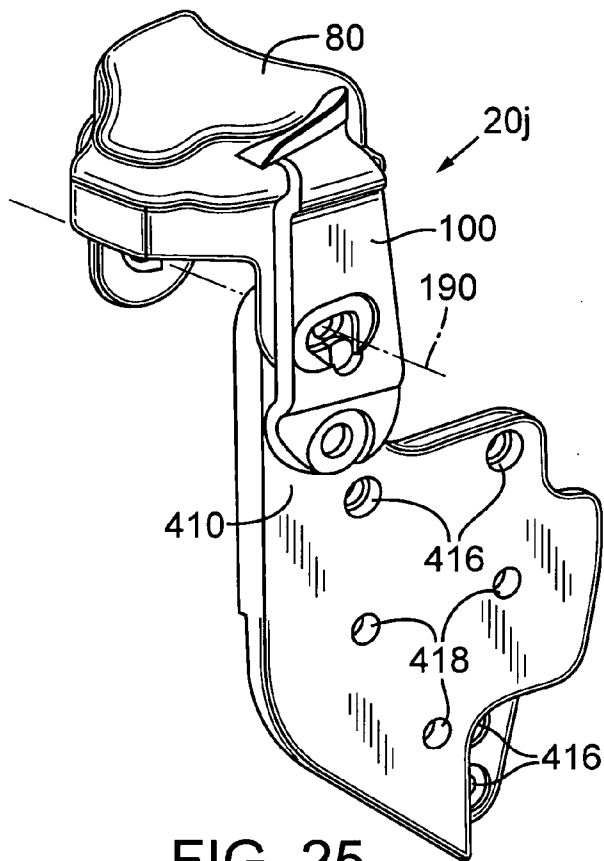


FIG. 25

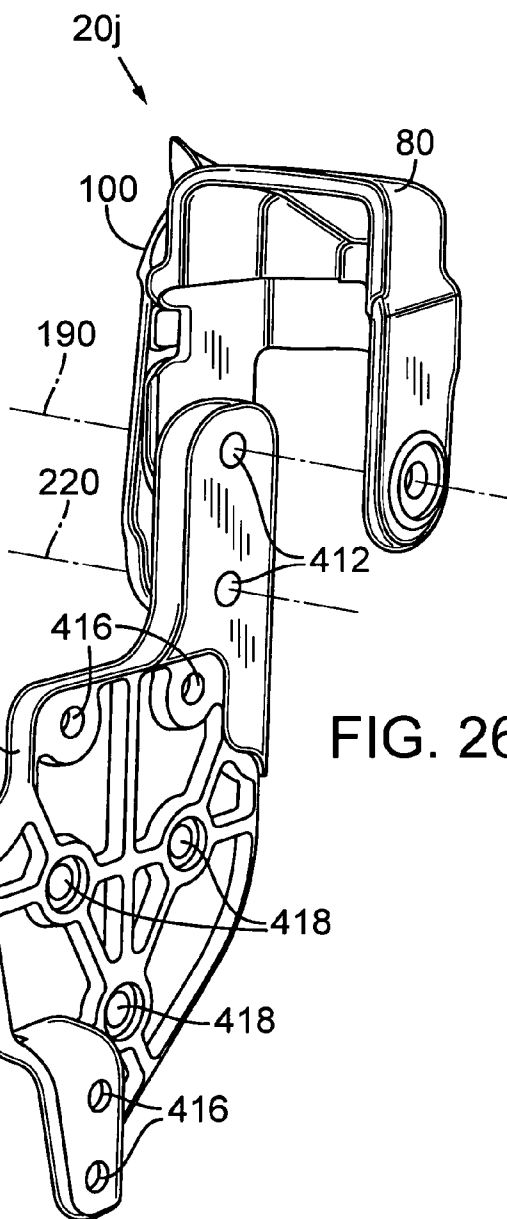


FIG. 26

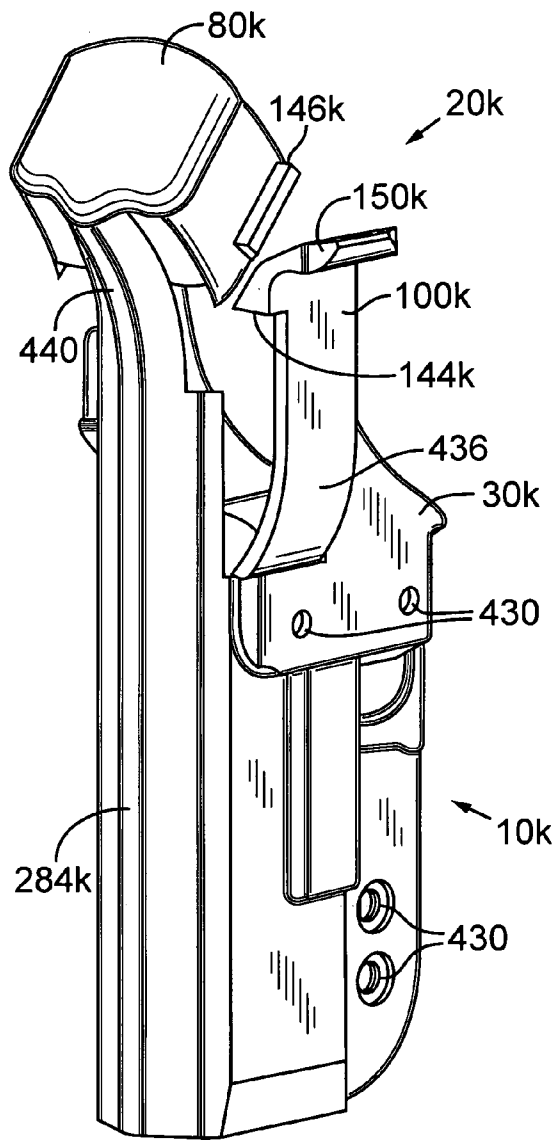


FIG. 27

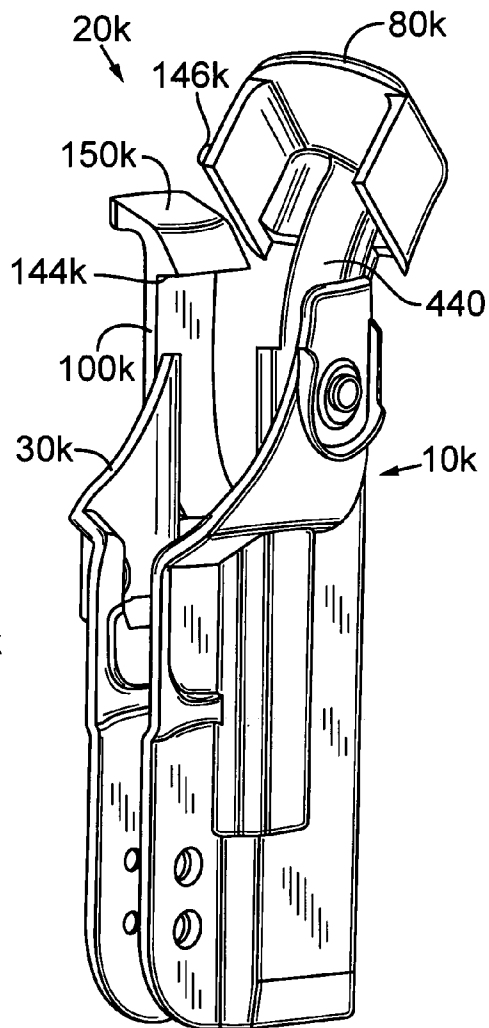


FIG. 28

## SECURITY HOOD FOR HANDGUN HOLSTERS AND THE LIKE

### RELATED APPLICATIONS

[0001] This application claims the benefit under 35 U.S.C. §119(e) of U.S. Provisional Patent Application No. 60/493,943, filed Aug. 7, 2003, which is incorporated herein by reference.

### TECHNICAL FIELD

[0002] This application relates to the field of holsters for service items such as handguns and radios, to security devices for preventing unauthorized removal of a holstered service item, and to a movable security hood for a holster.

### BACKGROUND OF THE INVENTION

[0003] Handgun holsters having security features such as safety straps and internal handgun restraint devices are well known for preventing inadvertent or unauthorized withdrawal of a handgun. A common security feature is a thumb-break safety strap that includes a flexible strap extending from an outer sidewall of the holster upwardly and over a top opening of the holster toward an inner sidewall of the holster, where it snaps or otherwise releasably connects to a thumb-break arm or tab. One drawback of thumb-break safety straps is that they can be difficult to quickly reattach when re-holstering the handgun, which can be problematic for a law enforcement officer involved in a chase or engaged in a struggle with an adversary.

[0004] U.S. Pat. No. 5,501,381 (the "381 patent") of Rogers et al. describes a handgun holster having a pivoting safety strap that rotates between a locked position where the strap bridges across a top opening of the holster and an open position forward of the top opening. A spring-actuated detent mechanism prevents the strap from being opened until selectively released by pressing downwardly on a portion of the strap, after which the strap can be manually pivoted forwardly to allow withdrawal of the handgun. When re-holstering the handgun, the strap is closed by manually pivoting it back to the upright closed position, where the detent mechanism engages under spring force to lock the safety strap.

[0005] In an effort to improve the security of the pivoting safety strap of the '381 patent, U.S. Pat. No. 6,371,341 (the "'341 patent") describes a releasable blocking mechanism that interferes with downward motion of the safety strap to prevent disengagement of the detent mechanism. To open the safety strap, the user first pivots the blocking member away from the safety strap using his or her thumb, then moves his or her thumb to the safety strap, presses the strap downwardly to disengage the detent mechanism, and rotates the strap forwardly.

[0006] The present inventors have recognized that when moving the pivoting safety straps of the '381 and '341 patents forwardly with the thumb, it is difficult or impossible for most users to simultaneously grasp the grip of the handgun. The blocking mechanism of the '341 patent may also interfere with a user's ability to quickly draw his or her weapon when necessary. For improved security and speed of handling, the inventors have recognized a need for a pivoting security hood that can be opened while simultaneously

holding the handgun grip or resting the palm of the hand on the butt of the handgun grip. The present inventors have also recognized a need for a pivoting security hood that locks when in the closed position to prevent the hood from being opened through manipulation of the hood, thereby preventing unauthorized access to a holstered handgun or other item.

### SUMMARY

[0007] A security hood assembly for a holster includes a hood that is movably supported in association with a holster body so that the hood extends over a portion of a holstered handgun or other service item when the hood is in a closed position, to prevent unauthorized removal of the service item. In a preferred embodiment, a lever of the security hood assembly is operably associated with the hood. The security hood assembly may include means for driving the hood toward an open position in response to operation of the lever, to allow the service item to be removed from the holster. In some embodiments, the lever is operably coupled to the hood such that the hood is driven forwardly toward the open position when the lever is moved rearwardly with the user's thumb, during which operation the palm of the user's hand may rest against or grasp a part of the holstered service item, such as the grip of a holstered handgun. The hood may be supported by the holster body or a common mounting platform for rotation about a hood pivot axis, and the lever may be supported on the holster body or some other part of the holster for rotation about a lever pivot axis, preferably parallel to the hood pivot axis. Exemplary linkages for operably coupling the lever to the hood include cam mechanisms and gear systems, for example.

[0008] In one embodiment, a holster with the security hood assembly includes a latch mechanism that releasably engages when the hood is in the closed position to prevent the hood from being opened through direct manipulation of the hood. The latch mechanism may be disengaged by moving or flexing at least a portion of the lever in a first direction relative to the hood, and thereafter moving the lever in a second direction different from the first direction to drive the hood toward the open position. Holsters including the security hood assembly may include internal retention devices within the holster body for added levels of security. A biasing mechanism, such as a spring, may also be provided for biasing the hood relative to the body, to urge the hood toward the open position or, in some embodiments, toward the closed position.

[0009] In some embodiments, the hood is made substantially rigid, for example by molding the security hood of a plastic resin. The hood may include a spanning portion that spans across an opening of the holster body and a skirt portion that depends from the spanning portion to overlap with the holster body and protect a holstered item from debris and damage. To prevent accidental discharge of a holstered cocked handgun, the security hood may also be configured to physically interrupt travel of the handgun's hammer when the hood is in the closed position.

[0010] Additional aspects and advantages of the invention will be apparent from the following detailed description of preferred embodiments, which proceeds with reference to the accompanying drawings.

## BRIEF DESCRIPTION OF THE DRAWINGS

[0011] FIG. 1 is a perspective view of a handgun holster in accordance with a first embodiment with a pivoting security hood assembly of the holster shown in its closed and latched position;

[0012] FIG. 2 is a rear perspective view of the holster of FIG. 1 with a hood of the assembly being driven forwardly toward an open position by manual movement of a lever of the assembly, to allow handgun holstering and removal;

[0013] FIG. 3 is top pictorial view of the holster of FIG. 1, with arrows illustrating two different directions in which the lever of the security hood assembly is moved for first unlocking a latch mechanism of the assembly and thereafter driving the hood toward the open position;

[0014] FIG. 4 is a top pictorial view of the holster of FIG. 2, with the user's hand omitted for clarity;

[0015] FIG. 5 is an inner side elevation view of the holster of FIG. 1, with a portion of a belt loop part of the holster broken away to reveal details of pivot mounts and a cam mechanism of the pivoting security hood assembly;

[0016] FIG. 6 is a cross-section view taken along line 6-6 of FIG. 5;

[0017] FIG. 7 is an inner side elevation view of an alternative embodiment of the holster of FIG. 1, in which a hood of the pivoting security hood assembly (shown in the open position) includes a window for engaging a corresponding latch pawl on a lever of the assembly;

[0018] FIG. 8 is an inner side elevation view of a holster in accordance with a second embodiment, including a gear drive mechanism for operably coupling the lever to the hood;

[0019] FIG. 9 is an enlarged isometric view of the hood of FIG. 8 showing detail of a pinion gear of the drive mechanism;

[0020] FIG. 10 is a perspective view of a holster in accordance with a third embodiment, with the hood shown in the open position;

[0021] FIG. 11 is a top plan view of the holster of FIG. 10;

[0022] FIG. 12 is a cross section view of the holster of FIG. 10 taken along line 12-12 of FIG. 11;

[0023] FIG. 13 is an enlarged detail perspective view of the top portion of a fourth embodiment holster including a coil spring for biasing the hood relative to the body of the holster toward the open position shown;

[0024] FIG. 14 is an enlarged detail perspective view of a top portion of the holster of FIG. 13 shown from the rear to reveal a leaf spring element of the body, which operates to urge the hood forward;

[0025] FIG. 15 is an inside elevation view of a fifth embodiment holster with its security hood assembly in the closed position and illustrating a holstered handgun in broken lines;

[0026] FIG. 16 is an inside elevation view of the holster of FIG. 15 with the thumb lever removed to show detail of a drive mechanism for actuating the hood;

[0027] FIG. 17 is an outside elevation view of a sixth embodiment holster including a security hood assembly and a biometric authentication device;

[0028] FIG. 18 is an inside elevation view of a seventh embodiment holster including a lever that is pressed downwardly to release a latch of the security hood assembly;

[0029] FIG. 19 is a perspective view of a holster in accordance with an eighth embodiment, including an aft-extending lever that is pressed downwardly to drive the hood toward the open position shown;

[0030] FIG. 20 is a top plan view of the holster of FIG. 19;

[0031] FIG. 21 is an outside elevation view of a holster with an index finger slide lever for releasably latching the security hood assembly, shown in the closed position;

[0032] FIG. 22 is an outside elevation of the holster of FIG. 21 shown with its hood releasably locked in the open position;

[0033] FIG. 23 is an outside elevation view of a holster with another slide lever mechanism, including a linkage arm coupled to the hood for driving the hood forwardly toward the open position shown, in response to downward movement of the slide;

[0034] FIG. 24 is a front elevation view of the holster of FIG. 23;

[0035] FIG. 25 is a front perspective view of a security hood assembly supported on a holster mounting platform, in accordance with another embodiment;

[0036] FIG. 26 is a rear perspective view of the security hood assembly and holster mounting platform of FIG. 25;

[0037] FIG. 27 is a front perspective view of a one-piece holster with security hood assembly, in accordance with yet another embodiment; and

[0038] FIG. 28 is a rear perspective view of the holster of FIG. 27.

[0039] In the drawing figures, like reference numbers refer to like elements.

## DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

[0040] Throughout the specification, reference to "one embodiment," "an embodiment," or "some embodiments" means that a particular described feature, structure, or characteristic is included in at least one embodiment. Thus appearances of the phrases "in one embodiment," "in an embodiment," or "in some embodiments" in various places throughout this specification do not necessarily refer to the same embodiment.

[0041] Furthermore, the described features, structures, and characteristics may be combined in any suitable manner in one or more embodiments. Those skilled in the art will recognize that the invention can be practiced without one or more of the specific details, or with other methods, components, materials, etc. In some instances, well-known structures, materials, and operations are omitted or not described in detail to avoid obscuring aspects of the embodiments.

[0042] FIG. 1 is a perspective view of a holster 10 including a security hood assembly 20 in accordance with a first embodiment. With reference to FIG. 1, a handgun 24 and a user's hand 26 are shown in phantom with dashed lines to avoid obscuring details of holster 10. Holster 10 includes a body 30 that defines a cavity 34 and a top opening 36 sized to admit at least a portion of handgun 24 into cavity 34. Cavity 34 may also be open in other places, such as along its bottom end (as shown in FIGS. 3, 4, and 6), but may preferably be closed to inhibit debris from entering cavity 34. Body 30 may be made of a wide variety of materials, such as leather, fabric, molded plastic, and other natural and synthetic materials, for example, and by any of a variety of manufacturing methods, such as molding, sewing, lamination, riveting, and other methods. An exemplary laminate holster body is shown in FIGS. 1-7 and described in more detail in U.S. Pat. No. 5,419,474 of Marx et al., the relevant disclosure of which is incorporated herein by reference. Other embodiments of the holster body are described below with reference to FIGS. 8-28.

[0043] With reference to FIG. 1, body 30 may include a multi-layer laminate sheet 42 bent in a generally horizontal U-shaped configuration to form opposing inner and outer sidewalls 46 and 48, respectively. Body 30 also may include a plastic frame 52, which serves as an exoskeleton that reinforces and adds rigidity to body 30. Sidewalls 46 and 48 are secured together with rivets or other fasteners 54 at respective inner and outer rear margins 56 and 58 along a welt or, more preferably, with a spacer block 62 secured between rear margins 56 and 58.

[0044] As mentioned above, body 30 is preferably sized to fit a handgun. However, in some embodiments, body 30 and security hood assembly 20 may also be sized and shaped to accommodate and fit one or more other types of side arms and service items, such as stun guns (for example, the kind under the trademark TASER®), knives, batons (truncheons), ammunition magazines, dispensing devices for chemical agents such as pepper spray, non-weapon service items, such as radios and handcuffs, and any other items carried by military or law enforcement personnel. Thus while the preferred embodiments described herein are adapted to secure handguns, the security hood assemblies and holsters consistent with the embodiments described herein may easily be modified or configured for use with a variety of service items other than handguns.

[0045] Holster 10 may include a backing plate 66 mounted to body 30 adjacent inner side wall 46. Backing plate 66 provides a rigid mounting platform for attaching a belt loop 70 to body 30. Backing plate 66 may also provide a rigid common platform for supporting security hood assembly 20 in association with body 30. Backing plate 66 is preferably made of a rigid plastic material such as ABS, for example. In FIG. 1, a duty belt 74 is shown in dashed lines extending through a throat opening 76 of belt loop 70. Belt loop 70 may comprise any of a variety of known belt loop structures, including, for example, the detachable belt loop shown in U.S. Pat. No. 6,161,741 of French, incorporated herein by reference. For clarity, holster 10 is shown and described as a right-handed holster, in which security hood assembly 20 is operable with the thumb 104 of a user's right hand 26, as described below with reference to FIG. 2. However, an alternative left-handed embodiment (not shown) is a mirror

image of the right-handed holster 10 of FIG. 1 and is adapted to be mounted on a user's left side for left-handed weapon handling.

[0046] Referring again to FIG. 1, security hood assembly 20 includes a hood 80 rotatably mounted on body 30 via at least one pivot joint 88. Hood 80 is shown in FIG. 1 in a closed position wherein hood 80 extends over at least a portion of handgun 24 and, incidentally, over at least a portion of top opening 36 of cavity 34. Cavity 34 is preferably shaped and configured to follow the contours of handgun 24 to define a constrained draw path 118 (FIG. 2) requiring handgun 24 to be drawn vertically from holster 10, rather than in some other direction such as rearward. By requiring handgun 24 to be drawn in a particular direction, the shape of cavity 34 cooperates with hood 80 when hood 80 is in the closed position to prevent handgun 24 from being removed from holster 10. The particular direction of drawing handgun 24, however is arbitrary. For example, holster 10 may be rotated to a horizontal orientation so that top opening 36 becomes a side opening and handgun 24 is drawn along a generally horizontal draw path. Thus, the movable security hood disclosed herein may be combined with other holster body configurations and constrained draw paths to cover or block at least a portion of the draw path for retaining a service item in holster 10.

[0047] With reference to FIGS. 1 and 2, security hood assembly 20 further includes a lever 100 operably coupled to hood 80 and positioned for manual manipulation via the user's thumb 104 for driving hood 80 toward an open position, as shown in FIG. 2. With reference to FIG. 2, movement of lever 100 rearwardly in the direction shown by arrow 108 causes hood 80 to rotate forward relative to body 30 in the direction shown by arrow 110. In alternative embodiments (not shown), lever 100 is coupled or geared to hood 80 such that hood 80 is rotated forward in response to movement of lever 100 or in another direction, such as downward, forward, inward, or outward. In yet other embodiments, lever 100 is configured and mounted to actuate hood 80 by direct downward or rearward motion, and may include a component slidably mounted on body 30. In still other embodiments, lever 100 may itself be driven by another device, such as a separately movable lever or slider, by a motor-drive mechanism, or a mechanism that also releases an internal retention device, thus eliminating the need for direct manipulation of lever to open hood 80. After hood 80 has been rotated to the open position, handgun 24 can be drawn from holster 10. Lever 100 is preferably molded of a 10% glass filled nylon 6 material for its strength and resiliency, but other materials may also be suitable.

[0048] Holster 10 preferably includes an internal retention device 112 (FIGS. 3 and 6) such as the type described in U.S. Pat. No. 6,547,111, incorporated herein by reference. In accordance with the embodiment shown, internal retention device 112 requires the user to twist a grip portion 114 of handgun 24 inwardly in the direction shown by arrow 116 before drawing handgun 24 upwardly in the direction shown by arrow 118. FIG. 6 depicts how a trigger guard 122 of handgun 24 is engaged by a wedge-shaped catch 124 of internal retention device 112 when handgun 24 is holstered. The sequential layers or levels of security provided by combining internal retention device 112 with security hood assembly 20 further prevent inadvertent or unauthorized removal of handgun 24 from holster 10. Although holster 10

in accordance with preferred embodiments includes an internal retention device in accordance with U.S. Pat. No. 6,547,111, the term "internal retention device," as used herein, should be construed broadly to include other types of handgun restraining devices that extend into cavity 34 to engage a portion of handgun 24 when holstered and any other devices supplemental to or independent of security hood assembly 20 for engaging handgun 24 or another service item in holster 10 to releasably retain it in cavity 34, regardless of whether such device itself extends into cavity 34. Thus security hood assembly 20 may be used with any of a variety of internal retention devices and secondary security devices, including mechanically operated devices, such as devices that engage a part of the handgun (for example, the trigger guard or shell ejection port); motor- or solenoid-driven devices; magnetic retention devices such as the type described in U.S. Pat. No. 6,616,020 of Spielberg; safety straps of all kinds; and other devices for engaging and retaining handgun 24 in cavity 34.

[0049] Because security hood assembly 20 may be operated by moving lever 100 in a direction other than forwardly, the user's hand 26 can remain in contact with grip 114 of handgun 24 while hood 80 is being opened, providing added security and control over handgun 24. Grip 114 can also be twisted inwardly in the direction shown by arrow 116 simultaneously with manipulation of lever 100, to thereby release handgun 24 from internal retention device 112 simultaneously with opening of security hood 80 for added speed of handling. Simultaneous rearward, downward, or outward movement of the user's thumb 104 and inward twisting of grip 114 is similar to the natural grasping action of the user's hand 26 and fingers when the user is wearing holster 10 in the side-holstered position shown in FIG. 2. However, simultaneous inward twisting of grip 114 and movement of lever 100 would be difficult for a person not wearing holster 10 at his or her side, which may provide the user with added security against unauthorized access by an assailant.

[0050] Hood 80 is preferably made of a rigid material such as cast, molded, and/or machined plastic, metal, ceramics, and composites, for example, but may also comprise other structures, such as a flexible, rigid, or semi-rigid strap that extends between pivot joints 88 on inner and outer sidewalls 46 and 48 and spans over a holstered handgun or other service item, for example. Hood 80 preferably includes at least a spanning portion 92 (see also FIGS. 9, 12, 19, and 20, described below) to retain handgun 24 when hood 80 is in the closed position. Spanning portion 92 (also referred to as a bail) is preferably formed of a substantially rigid material, such as injection molded plastic resin, for example, but may also be formed of flexible or semi-rigid materials. Among other benefits, a rigid spanning portion 92 is less susceptible than a flexible strap to being folded, bent, or stretched forward to allow unauthorized withdrawal of a holstered weapon, or folded, bent, or stretched rearward, where it may catch on handgun 24 (e.g., around the grip safety of an M-1911 or under the slide of a GLOCK) and frustrate a user's ability to open hood 80 and draw his or her weapon. A rigid spanning portion 92 may also require less maintenance. Hood 80 may further include a front skirt portion 96 (FIG. 12) that depends downwardly from spanning portion 92 and cooperates with spanning portion 92 and body 30 to cover or otherwise shield a holstered handgun 24 or service item from debris and damage. For example, front skirt

portion 96 may be especially useful for motorcycle police, to inhibit road debris and water from being blown or splashed into cavity 34 or the service item while riding. Front skirt portion 96 preferably overlaps a top rim of body 30 when hood 80 is in the closed position and may, in some embodiments, seal closely against an outer portion of the top rim to provide splash-resistant protection for a holstered service item. Hood may further include an optional rear skirt portion (not shown) extending rearward from spanning portion 92 to cover grip 114 (FIG. 5) of a holstered handgun 24 or to otherwise more fully cover top opening 36 of cavity 34 and protect a holstered item from the effects of the environment, debris, and damage, when hood 80 is in the closed position. Front skirt portion 96 and rear skirt portion may be formed of a flexible, rigid, or semi-rigid material and fastened to spanning portion 92 to form a lid or shroud assembly, but are preferably formed of one-piece construction with spanning portion 92 to form a unitary shroud part. Hood 80 and its component parts are preferably molded of a 10% glass filled nylon 6 material, but other materials may also be suitable. While skirt portions (and particularly front skirt portion 96) are generally desirable to provide added protection for a holstered item, the term "hood," as used herein, is intended to include any of the various kinds of spanning members, bails, covers, lids, shrouds, and straps described herein that may extend over at least a portion of a holstered service item and cooperate with holster body 30 to retain the service item in cavity 34, and is not intended to be limited to devices with front or rear skirt portions or to devices that rotate about a particular axis relative to body 30.

[0051] If made of a rigid material, hood 80 may be rotatably connected to body 30 by a single pivot joint 88, preferably located on either the inner or outer sidewall 46 or 48. However, for durability and reliability, hood 80 is preferably connected to body 30 by a pair of inner and outer pivot pins 126 and 128, respectively, forming two pivot joints, which are described below with reference to FIGS. 6 and 7. In other embodiments, hood 80 may be supported for movement modes other than rotation about a horizontal hood pivot axis 190 (FIG. 6). For example, hood may be slidably mounted to a track formed in or on body 30 and may be movable along a linear or curvilinear path between the open and closed positions. Hood may also be rotatable or pivotable about one or more axes oriented in a different location or orientation than horizontal hood pivot axis 190.

[0052] Advantageously, hood 80 may be shaped and configured to cover and protect a sighting device (not shown) on handgun 24, such as a rear sight blade of iron sights. Thus, hood 80 may prevent a sighting device from being damaged or knocked out of alignment due to impacts with foreign objects or structures. Hood 80 may also be shaped and configured to protect a rear portion of handgun 24 and may include features for preventing inadvertent discharge of handgun 24 while holstered. For example, hood 80 may include a blocking member or section that interferes with movement of a hammer and/or firing pin of the handgun. One embodiment of hood 80 includes a blocking member or blocking section that is interposed between the hammer and the firing pin or slide of handgun 24 when hood 80 is in the closed position and the hammer is cocked. This optional feature is especially desirable when the security hood assembly 20 is used with handguns of the type commonly used by law enforcement officers and normally carried "cocked and locked," including government model 45 caliber pistols such

as the COLT® 1911 Series pistols sold by Colt's Manufacturing Company, Inc., Hartford, Conn., USA. The blocking member or blocking section of hood 80 interrupts travel of the hammer to prevent accidental discharge of the handgun 24 in the event that the handgun's safety is inadvertently left unlocked or the hammer is somehow accidentally released while handgun 24 is in holster 10.

[0053] FIG. 3 is a top pictorial view of holster 10 including security hood assembly 20 shown in the closed position. With reference to FIG. 3, security hood assembly 20 includes a latch mechanism 140 that releasably engages when hood 80 is in the closed position to prevent hood 80 from being inadvertently opened through direct manipulation of hood 80 or otherwise. Latch mechanism 140 may include any of a variety of stops, tabs, detents, and other devices for securing hood 80 relative to body 30 when hood 80 is in the closed position, but preferably includes a first latch part 144 on lever 100 that cooperates with a second latch part 146 on hood 80. First latch part 144 preferably extends outwardly from a thumb pad portion 150 of lever 100, and second latch part 146 preferably extends inwardly from hood 80 toward latch 100. Respective first and second latch parts 144 and 146 are aligned when security hood assembly 20 is in the closed position to engage each other and oppose rearward movement of lever 100 and forward movement of hood 80. To disengage latch mechanism 140, the user engages lever 100 via thumb pad portion 150 to move at least a portion of lever 100 in a first direction 154 relative to body 30 followed by movement of lever 100 in a second direction 156 different from first direction 154. In a preferred embodiment, first direction 154 involves flexing lever 100 to move thumb pad portion 150 and first latch part 144 inwardly, and second direction 156 involves rotating lever 100 rearward. However, in other embodiments, movement of a portion of lever 100 in the first direction could include moving a part of lever 100 or latch mechanism 140 in another first direction, such as downward, inward, outward, or forward, before movement of lever 100 in the second direction. Also, the second direction may include movement in a direction other than rearward, such as inward, outward, forward, or downward. In yet other embodiments (not shown), lever 100 may be mounted in other locations on holster 10, such as along outer sidewall 48 of body 30. When mounted along outer sidewall 48, lever 100 actuated by the user's index finger for rotation or sliding movement of lever 100 in an inward, downward, or rearward direction. Regardless of the sequence of movements required to release latch mechanism 140, it should preferably be possible for the user to keep the palm of his or her hand 26 on grip 114 of handgun 24 while releasing latch mechanism 140 and opening hood 80. However, in some embodiments, movement of lever 100 in respective first and second directions may involve lifting the hand 26 from grip 114 when operating latch mechanism 140 and/or security hood assembly 20. For improved gripping, thumb pad portion 150 may include a knurled or textured surface formed or molded into its surface, or may include a high-friction material, such as rubber, that is formed, embedded, or molded into thumb pad portion 150 or otherwise attached thereto.

[0054] Operation of latch mechanism 140 may also cause an internal retention device or other secondary security device to be released, locked, opened, closed, put into a stand-by mode, or set to a heightened security mode. For this

purpose, latch mechanism 140 may be operably coupled to or form part of an electronic switch that is opened or closed in response to movement of lever 100.

[0055] FIG. 4 is another top pictorial view of holster 10, which shows security hood assembly 20 in the open position following release of latch mechanism 140 and rearward movement of lever 100, as described above with reference to FIG. 3. From this open position, internal retention device 112 can be released through manipulation of handgun 24 or, in alternative embodiments, through some other action such as manipulation of a secondary handgun retention device or by fingerprint identification, for example. To return security hood assembly 20 to the closed position, the user may pull hood 80 rearwardly. A power-transmission coupling 160 (FIGS. 5-7) between hood 80 and lever 100 causes lever 100 to move to the full upright closed position of FIG. 3 when hood 80 is pulled closed. Alternatively, the user may close hood 80 by pressing forwardly on lever 100, thereby driving hood 80 rearward toward the closed position via coupling 160. A forward face 162 of first latch part 144 may be sloped to provide a lead-in for smooth re-engagement of latch mechanism 140. Second latch part 146 may also include a ramp or other lead-in for facilitating a smooth closing action and re-engagement of latch mechanism 140. Skilled persons will appreciate that latch mechanisms having other designs may include features different from sloped forward face 162 for providing smooth re-engagement of latch mechanism 140.

[0056] Security hood assembly 20 may further include a stop 170 for preventing hood 80 from moving rearwardly relative to body 30 from the closed position. In the preferred embodiment, stop 170 extends outwardly from a rear edge 174 (FIG. 5) of lever 100 to block an inner vertical wall 178 (FIG. 6) of hood 80. Stop 170 preferably also prevents forward rotation of lever 100 from the closed position. In an alternative embodiment, stop 170 may be connected to a different portion of holster 10, such as backing plate 66 or body 30, and may limit rearward rotation of hood 80 independently of the movement of lever 100. In yet other embodiments (not shown), stop 170 may be connected to backing plate 66 or body 30 to limit both rearward movement of hood 80 and forward movement of lever 100 from the closed position. Stop 170 may include any other means and devices for preventing movement of hood 80 rearward from the closed position and, in some embodiments, may also prevent movement of lever 100 in a direction opposite the direction in which lever 100 is moved to open hood 80.

[0057] FIG. 5 is an inner side elevation view of holster 10 with a portion of belt loop 70 broken away to reveal details of coupling 160 and the mounting of security hood assembly 20 to body 30. FIG. 6 is a cross-section view taken along line 6-6 of FIG. 5. With reference to FIGS. 5 and 6, inner pivot pin 126 and outer pivot pin 128 rotatably couple hood 80 to body 30 for rotation about horizontal hood pivot axis 190. Inner and outer pivot pins 126 and 128 preferably comprise pan head or truss head machine screws that extend through inner and outer vertical walls 178 and 184 of hood 80 and are secured with thin nuts 192. Inner and outer pivot pins 126 and 128 preferably include smooth shanks 196 and 198, respectively, which are preferably sized to provide a smooth bearing surface for rotation of hood 80. In other embodiments, inner and outer pivot pins 126 and 128 may comprise rivets or other types of fasteners that include a

generally cylindrical shank about which hood **80** can rotate. In still other embodiments, pivot pins **126** and **128** may be integrally formed or molded as part of body **30** and/or hood **80** to eliminate the need for separate fasteners and to allow snap-together assembly. Inner pivot pin **126** desirably extends through backing plate **66** and a portion of plastic frame **52** for providing sturdy support for hood **80**. Outer pivot pin **128** preferably secures outer vertical wall **184** of hood **80** to an outer portion of plastic frame **52**. Curved washers **202** may be provided for protecting nuts **192** from rubbing against inner and outer sidewalls **46** and **48** of body **30**. Inner pivot pin **126** preferably extends through an inverted-L-shaped cam slot **210** in lever **100**, which is described below in greater detail.

[0058] In the embodiment shown in FIGS. 1-7, lever **100** is rotatably attached to body **30** along inner sidewall **46**. More specifically, a lever pivot pin **214** rotatably secures a lower portion **216** of lever **100** to backing plate **66** for rotation about a generally horizontal lever pivot axis **220**. Lever pivot axis **220** is substantially parallel to hood pivot axis **190**, and preferably aligned vertically with hood pivot axis **190**, as shown. However, in alternative embodiments, lever pivot axis **220** may be located forward, rearward, or above hood pivot axis **190**. In some embodiments hood pivot axis **190** and lever pivot axis **220** need not be parallel. In yet another embodiment (not shown), lever pivot axis **220** is coincident with hood pivot axis **190**. In still other alternative embodiments, lever **100** is slidably mounted on body **30** or flexibly coupled to hood **80** to allow linear movement or other movement modes. The mounting location of hood **80** and lever **100** on holster **10**, and the relative positions of hood pivot axis **190** and lever pivot axis **220** or slide way, will affect the configuration and structure by which lever **100** is coupled to hood **80**.

[0059] In the preferred embodiment, lever **100** is coupled to hood **80** via power-transmission coupling **160**, including a pin-in-slot type cam mechanism **226** (FIG. 5). Cam mechanism **226** includes inverted-L-shaped cam slot **210** in lever **100** and a cam follower **230** of hood **80** that extends from inner vertical wall **178** of hood **80** to engage cam slot **210**. Cam follower **230** preferably includes a pin that is integrally molded with hood **80**. However, in other embodiments, cam follower **230** comprises a separate part attached to inner vertical wall **178** or another part of hood **80**. Cam follower **230** is sized to slide within a generally vertical first segment **236** (FIG. 10) of cam slot **210** in response to movement of lever **100** for transmitting power from lever **100** to hood **80** and vice versa. A generally horizontal second segment **238** (FIG. 10) of cam slot **210** extending transversely to first segment **236** provides clearance for inner pivot pin **126** (omitted from FIG. 10 to reveal details of cam mechanism **226**) and does not actually function as a cam track or surface. Because cam follower **230** is offset from hood pivot axis **190**, movement of lever **100** drives hood **80** forwardly, as described above with reference to FIGS. 2 and 3.

[0060] FIG. 7 is a side elevation view of holster **10** showing a first alternative embodiment hood **80'** rotated to the open position and lever **100** rotated rearward. Hood **80'** differs from hood **80** of FIGS. 1-6 in that hood **80'** includes a window **232** in place of second latch part **146**. Window **232** is sized to engage first latch part **144** of lever **100** when lever

**100** and hood **80'** are in the closed position, in a manner similar to first and second latch parts **144** and **146** of FIGS. 1-5.

[0061] In FIG. 7, hood **80'** and lever **100** are shown in the open position, to illustrate the operation of cam mechanism **226**. As shown in FIG. 7, when lever **100** is rotated rearward, cam follower **230** slides generally upwardly along first segment **236** of cam slot **210** and generally rearward of hood pivot axis **190** (FIG. 6), causing hood **80'** to rotate forwardly relative to body **30**.

[0062] Mechanisms different from the pin-in-slot type cam mechanism **226** may also be employed in security hood assembly **20** for operably coupling lever **100** to hood **80**, so that hood **80** is moved forwardly in response to manual movement of lever **100**. For example, the coupling **160** between lever **100** and hood **80** may include another kind of cam drive mechanism or a gear drive mechanism, such as the one shown in FIGS. 8 and 9. Advantageously, a cam drive or gear drive may also result in movement of hood **80** from the open position toward the closed position in response to returning lever **100** to the closed position. In yet other embodiments, such as the embodiments of FIGS. 21, 22, 27, and 28, described below, lever **100** releasably locks hood **80** in the closed position, but does not drive hood **80**. In such embodiments, security hood assembly **20** preferably includes a device separate from lever **100** for urging hood **80** forwardly in response to movement of lever **100**, such as the biasing mechanisms described below with reference to FIGS. 10-14, 27, and 28.

[0063] FIGS. 8-28 depict further embodiments of holster **10** and security hood assembly **20**. In the embodiments of FIGS. 8-28, body **30'** of holster **10** is molded or formed of a thermoplastic resin to form a hard structure. Suitable resins include nylon 6 (with or without glass reinforcement filling); CAPRON® brand nylon sold by BASF Corporation, Mount Olive, N.J., USA; and KYDEX® brand acrylic/PVC alloy sold by Kleerdex Company of Aiken, S.C., USA. The sides of body **30'** are preferably shaped to snugly fit handgun **24** and to engage or pinch its trigger guard to provide a supplemental handgun retention feature **244** (best shown in FIGS. 17 and 19). The molded construction of body **30'** may eliminate the need for the curved washers **202** of FIG. 6 and may include bosses along an inside surface of body **30'** for seating and protecting nuts **192** (FIG. 6) or rivet heads. In some embodiments, stops may be molded or formed in or on the outer surfaces of the inner and outer sidewalls **46** and **48** of body **30'** adjacent hood pivot axis **190** to prevent over-rotation of hood **80** or to eliminate the need for the stop **170** of FIGS. 1-7. For example, FIGS. 13, 14, 21, 22, and 23, among others, depict a J-shaped stop lip formed in body **30'** around the hood pivot hole along the ends of the downwardly depending sidewalls of hood **80**. The J-shaped stop lip establishes forward and rearward limits of rotation for hood **80**.

[0064] FIG. 8 is an inner side elevation view of holster **10** and security hood assembly **20a** in accordance with a second embodiment, including a gear drive mechanism **250** for operably coupling lever **100** to hood **80**. Gear drive mechanism **250** includes a rack **254** formed along an arcuate lower edge of a slot **258** in lever **100**. A pinion gear **260** of gear drive mechanism **250** is centered on the pivot axis of hood **80** and meshes with rack **254** so that pinion gear **260** is



rotatably driven in response to rearward movement of lever **100**. A hood pivot pin, omitted from **FIG. 8** for clarity, extends through a hole **264** in hood **80** centered on pinion gear **260**. In **FIG. 8**, hood **80** is shown in the closed position. Other details of security hood assembly **20a**, such as its latch mechanism, for example, may be similar to the embodiment of **FIGS. 1-6**.

[**0065**] **FIG. 9** is an enlarged isometric view of hood **80** of **FIG. 8** showing detail of pinion gear **260** and hole **264**. With reference to **FIG. 9**, pinion gear **260** is affixed to hood **80** along inner vertical wall **178** of hood **80** and may be formed of a unitary molded construction with hood **80** or with inner vertical wall **178** thereof. In this second embodiment, hood **80** features a hammer guard section **268** that extends rearward from spanning portion **92** of hood **80** to cover the hammer when handgun **24** (**FIG. 15**) is holstered in the cocked-and-locked condition. Hammer guard section **268** is also preferably formed of unitary molded construction with hood **80**. Hammer guard section **268** protects the hammer of handgun **24** from impacts, and also provides a convenient region for molding a blocking feature **272** (**FIG. 12**) into hood **80** for preventing the hammer from accidentally falling from the cocked-and-locked position. In a mold for fabricating hood **80**, a mold insert can be conveniently changed to alter the shape and position of blocking feature **272** to fit a particular model of handgun **24**, without changing the outward appearance of hammer guard section **268**. Thus hammer guard section **268** may facilitate the use of a single mold to make multiple different hoods, customized to fit particular handgun and hammer shapes.

[**0066**] Blocking feature **272** may also be sloped or shaped so that, in the event that a holstered handgun's hammer is accidentally released against blocking feature **272**, the handgun **24** can be removed from holster **10** without discharging. Blocking feature **272** may be shaped or angled so as to provide a track along which the hammer smoothly rides while hood **80** is slowly opened, to thereby gently release the hammer and reduce the force of the hammer against the firing pin to avoid discharging the firearm.

[**0067**] In some embodiments, hood **80** is biased toward the open position by a spring, elastic band, or other biasing mechanism, so that hood **80** will automatically open after latch mechanism **140** is released. In other embodiments, a similar biasing mechanism does not automatically open hood **80**, but assists a user's manual lever-controlled opening or closing of hood **80**, or merely biases hood **80** to prevent hood **80** from swinging or being inadvertently closed, once unlatched and open. Such a biasing mechanism is preferably interposed between and operably associated with hood **80** and body **30**, but may also be operably associated with lever **100** instead of hood **80** or instead of body **30**. For example, **FIGS. 11, 12, and 14** depict a biasing mechanism for a security hood assembly **20b** including a leaf spring **282** that is integrally formed in a forward spine portion **284** of body **30**. Leaf spring **282** extends forwardly of spine **284** to urge hood **80** forwardly toward the open position, as shown in **FIGS. 11 and 12**. **FIGS. 13 and 14** depict another embodiment of a biasing mechanism for a security hood assembly **20c** including a coil spring **290** for urging hood **80** forwardly toward the open position shown. A first end **294** (**FIG. 14**) of coil spring **290** is lodged in body **30**. Coil spring **290** is preloaded so that a second end **296** thereof presses against a rearward edge **298** of inner vertical

member **178** of hood **80** to urge hood **80** forwardly toward the open position. Other biasing mechanisms may be interposed between hood **80** and lever **100**, or between other parts of holster **10**, such as between hood **80** and a holster mounting plate **66** or belt loop **70**, for example.

[**0068**] In some embodiments (not shown), the direction of biasing force may be reversed so that a spring or other biasing mechanism opposes the movement of hood **80** toward the open position and tends to assist or cause closure of hood **80**. In yet other embodiments, biasing force may be effected for one or more portions of the travel of hood **80**.

[**0069**] Security hood assembly **20** (including **20a, 20b, 20c**, etc.) may include lobes, ridges, detents, spring members or other features that are formed in or applied to hood **80** and/or body **30** and operably adapted to engage during selected portions of the travel (throw) of hood **80** as it moves between the open and closed positions. In one embodiment, one or more lobes or detents is formed on an inside surface or arcuate lower edge of inner vertical wall **178** and/or of outer vertical wall **184** of hood **80**. One or more recesses or detent grooves is formed on an outer surface of body **30** and positioned for engagement with the lobe or detent during a selected portion of the rotary movement of hood **80**. For example, a lobe and a recess may be located on the respective hood **80** and body **30** so as not to interfere with movement of hood **80** from the vertical fully closed position to a half-open position, but to begin engaging after the hood reaches the half-open position and to urge hood **80** from the half-open position to the fully open position. Alternatively, a lobe or detent and an associated recess or groove may be positioned to apply biasing force as hood **80** is nears the closed position when rotated rearward from the open position, thereby causing positive engagement of latch mechanism **140** without requiring manual force on lever **100** as it nears the vertical position.

[**0070**] **FIGS. 10-14** depict an embodiment of holster **10** with a security hood assembly **20c** including a spring lobe **310** that moves into a notch **314** along rearward edge **289** of hood **80** when hood **80** is in the open position, to thereby resist closing of hood **80**. For clarity, inner pivot pin **126** for hood **80** is omitted from **FIGS. 10-14**, and lever **100** and outer pivot pin **128** are omitted from **FIGS. 13 and 14**. With reference to **FIGS. 10-14**, lobe **310** preferably includes a hemispherical button (best shown in **FIG. 11**) at the end of a spring arm **318** (**FIG. 12**) integrally formed in body **30**. Spring arm **318** is preferably formed by molding or cutting a U-shaped slot **322** (**FIG. 12**) in inner sidewall **46** of body **30**. U-shaped slot **322** provides clearance around the perimeter of spring arm **318** to allow spring arm **318** to flex inwardly when hood **80** is closed. In the embodiment of **FIGS. 10-14**, other details of security hood assembly **20b**, such as its latch mechanism, for example, may be similar to the embodiment of **FIGS. 1-6**.

[**0071**] **FIGS. 15 and 16** are inside elevation views of holster **10** including a security hood assembly **20d** according to yet another embodiment. With reference to **FIGS. 15 and 16**, security hood assembly **20d** includes a drive mechanism **330** operably associated with hood for driving hood toward the open position. Drive mechanism **330** may comprise a solenoid **334** having a plunger **336** that is driven against a drive tab **340** (**FIG. 16**) depending downwardly from inner vertical wall **178** of hood **80** below its pivot axis **190** (**FIGS.**

6, 13, and 14). Solenoid 334 may be activated by an electronic device 346 (FIG. 16) housed within holster body 30' or otherwise associated with holster 10. For example, security hood assembly 20d may be operably associated with a switch that activates electronic device 346 when lever 100 is moved to unlatch security hood assembly 20d or open hood 80. In one embodiment, a first electrical contact may be formed on an inner surface of lever 100 facing holster body 30' and be positioned to wipe against a second electrical contact 344 (or switch) located on inner side surface of body 30 adjacent lever pivot pin 214 (FIG. 15). The first and second electrical contacts may open or close a circuit or switch in response to movement of lever 100, to thereby activate electronic device 346 for actuating drive mechanism 330. In other embodiments, a switch associated with security hood assembly 20 (including 20a, 20b, 20c, etc.) may be used for activating a different kind of electronic device, such as electronic circuitry of a holstered service item or a computer controlled device integrated with holster 10, for example.

[0072] With reference to FIG. 16, electronic device 346 may include a signaling device contained in holster body 30' that sounds an audible alarm or alerts a central station via a radio frequency signal transmitter and antenna 348, in response to actuation of security hood assembly 20 and switch 344. Electronic device 346 may also be located in other places on holster 10 or be separate from but coupled to holster 10, and may be carried by a user on a duty belt 74 (FIG. 1), for example. Hood 80 may also include one or more electronic contacts that contact metal pins or pads on a holstered service item to close or short a circuit in the service item when hood 80 is in the closed position. In this way, opening of hood 80 can automatically activate a service item only when needed and conserve battery power when the service item is holstered. For example, opening of hood 80 may cause a holstered service item such as a radio, stun gun, or tactical illuminator to be switched to a stand-by mode. Alternatively, one or more first electrical contacts may be provided on hood 80 or lever 100 and one or more second electrical contacts may be provided on body 30 or another part of holster 10. First and second electrical contacts may be positioned to cooperate at one or more selected portions of the travel of hood 80 (e.g., at all positions other than the closed position), to activate an electronic device, such as an alarm, a radio-frequency signaling device, a biometric authentication device, or other circuitry of holster 10 or a holstered service item.

[0073] In one embodiment, a switch or electrical contacts associated with security hood assembly 20 trigger electronic device 346 to power-up an integrated GPS receiver to acquire GPS satellite signals (e.g. via antenna 348). Switches or contracts operated by security hood assembly 20 may also trigger an integrated mobile telephone device or radio transmitter associated with the GPS receiver to go to a stand-by mode for signaling a dispatch center or tactical operations communication facility. A second switch may be provided for activating a second function of electronic device 346 upon drawing of a handgun 24 or other service item from holster 10. The second function may include logging or transmitting of position data, time data, and officer ID information, for example. Thus, actuation of security hood assembly 20 may put a GPS receiver and cell phone into a stand-by mode to prevent delays in acquiring remotely broadcast signals needed to acquire and transmit

position data, time data, officer identification information, and other data to the dispatch center or tactical operations communication facility, when the handgun or other service item is subsequently drawn from holster 10.

[0074] Security hood assembly 20 (including 20a, 20b, 20c, etc.) may be used in conjunction with a radio-frequency key device or a biometric authentication device similar to the one sold under the trademark PRO-4™ by Michaels of Oregon Company, the assignee of the present application, and described in U.S. Pat. No. 6,641,009 of French et al., which is incorporated herein by reference. When a biometric authentication device is used, hood 80 may be locked and unlocked by a blocking device driven by an actuator responsive to electronic signals generated by the biometric authentication device upon verification of a unique biometric characteristic of the user, such as a fingerprint, for example. Authentication of an authorized user via a biometric authentication device may also trigger an internal handgun retention device to release a holstered handgun or service item, as described in the '009 patent. Use of a radio-frequency key device with security hood assembly 20 allows the biometric authentication device to be controlled remotely, for changing user permissions, operational configuration, etc., in response to receipt at the holster of radio-frequency signals from a remote control device. FIG. 17 is an outside elevation view of an embodiment of security hood assembly 20e including a fingerprint scanner 350 in accordance with the '009 patent. As shown in FIG. 17, security hood assembly 20e may be similar to security hood assembly 20d of FIGS. 15 and 16, but may omit lever 100, relying solely on biometric identification via fingerprint scanner 350 to activate drive mechanism 330 for unlatching and driving hood 80 to the open position. Alternatively, holster 10 may be configured with two independent security devices: (1) fingerprint scanner 350 coupled to an internal retention device; and (2) security hood assembly 20e including a lever 100 and latch 140 for manually operating hood 80.

[0075] FIG. 18 is an inside elevation view of yet another embodiment of security hood assembly 20f, including an alternative latch mechanism 140f. With reference to FIG. 18, latch mechanism 140f includes a first latch part (similar to first latch part 144 of FIGS. 1-7) formed on an outer side surface of lever 100f. Latch mechanism 140f further includes a second latch part 146 formed on hood 80 that engages with the first latch part when lever 100f and hood 80 are in the closed position to releasably lock hood 80. Latch mechanism 140f is released via a living spring 356 formed in lever 100f. Living spring 356 flexes in response to downward force applied to thumb pad portion 150 of lever 100f, causing the first latch part to move out of alignment relative to second latch part 146. Thereafter, lever 100f may be swept rearward to open hood 80. This embodiment of security hood assembly 20f may reduce or eliminate inward movement of the lever required to release the latch mechanism 140 of the embodiments of FIGS. 1-12. A soft insert 358 of elastomer or other resilient compressible material may be included for filling one or more openings in living spring 356. Soft insert 358 may be inserted or overmolded during a secondary molding operation or during molding of lever 100f. Soft insert 358 may have a hardness selected to alter the spring force of living spring 356 to suit a user's specifications, without requiring a redesign of living spring 356. Soft insert 358 may also have a color that contrasts with the

color of lever **100f**, to provide a visually suggestive indicator of the function of living spring **356** and soft insert **358**.

[0076] FIGS. 19 and 20 are respective perspective and top plan views of holster **10** including still another embodiment of security hood assembly **20g**. With reference to FIGS. 19 and 20, security hood assembly **20g** includes a hood **80g** comprising a rigid inverted-U-shaped bail that spans between inner and outer pivot joints **88** on a hood pivot axis **190** (FIG. 20). Hood **80g** is shown in the open position. The closed position (not illustrated) involves the hood being oriented generally in alignment with holster body **30'** to span over the top opening **36** of cavity **34**. Hood **80g** includes a spanning portion **92**, but omits the front skirt portion **96** of the embodiments of FIGS. 1-18. In an alternative embodiment (not shown) hood **80g** may be replaced with a different hood offering benefits similar to the hoods shown in FIGS. 1-7 or FIGS. 8-18, for example. A lever **100g** of security hood assembly **20g** is pivotably mounted to body **30'** for rotation about a lever pivot axis **220g** that is spaced apart horizontally relative to hood pivot axis **190**. Lever **100g** includes a thumb pad portion **150g** that is positioned rearward of lever pivot axis **220g**. To open hood **80g**, a user presses downwardly on thumb pad portion **150g** to drive hood **80g** via coupling **160g**. Coupling **160g** comprises pin **362** that couples hood **80g** to a slot **364** in the end of lever **100g** opposite thumb pad portion **150g**. Pin **362** slides along slot **364** as lever **100g** is rotated in a manner similar to cam mechanism **262** of FIGS. 1-7 and 10-12. A latch mechanism for releasably holding hood **80g** in the closed position includes a detent bump **366** (FIG. 20) formed along a surface of lever **100g** facing holster body **30'** and a detent recess **368** (FIG. 19) formed along an outer surface of hood. Detent bump **366** seats in detent recess **368** when hood **80g** is moved to the closed position. Other latch mechanisms may also be used with security hood assembly **20g**.

[0077] FIGS. 21 and 22 are outside elevation views of holster **10** including a security hood assembly **20h** in accordance with another embodiment. With reference to FIGS. 21 and 22, a lever **100h** of security hood assembly **20h** is mounted along outer sidewall **48** of body **30'** for manual actuation with the user's index finger. Lever **100h** is mounted on a slide way **374** for sliding movement in the direction shown by arrows **378** to release a latch **140h**. Latch **140h** includes a pawl extension **382** of lever **100h** that engages one or more notches **386** in an outer vertical wall **184** of hood **80**. Security hood assembly **20h** may include the leaf spring **282** and/or coil spring **290** of FIGS. 10-13 for driving hood **80** from the closed position (FIG. 21) to the open position (FIG. 22) in response to sliding of lever **100h** downwardly to release latch **140h**. In other embodiments, hood **80** may be power-driven, such as in the embodiment of FIGS. 15 and 16, for example. A spring or other slide biasing device (not shown) may be provided to urge lever **100h** upwardly for returning lever **100h** to the latched position.

[0078] FIGS. 23 and 24 are respective outside elevation and front elevation views of an alternative embodiment security hood assembly **20i** similar to the embodiment of FIGS. 21 and 22, but further including a drive linkage **392** that transmits a drive force from sliding lever **100i** to hood **80** for driving hood from the closed position (not shown) to the open position shown, in response to downward sliding

movement of lever **100i**. Lever **100i** includes a horizontally-extending drive rod **396** at the distal end of flexible linkage **392**, which extends through a hole in a forward portion of hood **80** forward of pivot joint **88**. Downward sliding movement of lever **100i** along slide way **374** simultaneously releases the latch **140h** and pulls downwardly on the front portion of hood **80** via linkage **392** and drive rod **396**, to rotate hood **80** toward the open position.

[0079] FIGS. 25 and 26 are respective front and rear perspective views of a security hood assembly **20j** supported on a mounting platform **410**, in accordance with still another embodiment. With reference to FIGS. 25 and 26, mounting platform **410** provides a common base for mounting hood **80**, lever **100**, and a holster body (omitted for clarity). Mounting platform **410** includes a first set of holes **412** (FIG. 26) for receiving pivot pins (not shown) for mounting hood **80** and lever **100** for rotation about their respective hood and lever pivot axes **190** and **220**. A second set of holes **416** are provided for mounting the holster body to mounting platform **410**, and a third set of holes **418** are provided for attaching mounting platform **410** to a belt loop **70** (FIG. 1) or other support structure. Mounting platform **410** facilitates modular construction and adjustable reconfigurable assembly of holsters to fit various handguns from various manufacturers. For example, subassembly **420** of the mounting platform **410** and security hood assembly **20j** (including hood **80**, lever **100**, and the pivot pins), may be standard for a wide variety of handguns, while the body **30** may be selected to fit a particular model of handgun.

[0080] FIGS. 27 and 28 are respective front and rear perspective views of a one-piece holster assembly **10k** with security hood assembly **20k**, in accordance with yet another embodiment. With reference to FIGS. 27 and 28, holster **10k** includes all necessary components of security hood assembly **20k** integrally formed of unitary construction with body **30k**. Body **30k**, lever **100k**, and hood **80k** are preferably molded of a plastic resin in a single molding step. Thereafter, body **30k** may be fitted with an internal retention device and tension adjustment insert (not shown). Body **30k** includes mounting holes **430** (FIG. 27) for mounting holster **10k** to a mounting platform or belt loop (not shown). Lever **100k** includes a first latch part **144k** in the shape of a catch or pawl along the side of lever **100k** proximal hood **80k** and an integral spring section **436**. Hood **80k** is attached to body **30k** via a resilient neck portion **440**, shown in FIGS. 27 and 28 in its neutral open position. Neck portion **440** extends upwardly from spine **284k** of body **30k** and is molded in a curved shape to provide spring force, discussed below. Hood **80k** further includes a second latch part **146k** along its inner side, adjacent lever **100k**. When hood **80k** is moved to the closed position (not shown) neck portion **440** flexes until first latch part **144k** engages second latch part **146k**. Latch parts **144k** and **146k** cooperate with the spring forces imparted by flexure of neck portion **440** and the reactive flexure of spring section **436**, to thereby retain hood **80k** in the closed position. Latch parts **144k** and **146k** may be undercut slightly so that the spring forces of spring section **436** and neck portion **440** drive latch parts **144k** and **146k** more tightly into engagement for a strong, but releasable lock. Thereafter, downward and inward pressure on thumb pad portion **150k** of lever **100k** will release the latch and allow the spring force of neck portion **440** to move hood **80k** to the open position. Thus holster **10k** includes an integral thumb-break security shroud that improves upon the con-

ventional thumb-break safety strap by virtue of the security and safety features and other benefits described above with reference to this and other embodiments of the security hood assembly.

[0081] It will be obvious to those having skill in the art that many changes may be made to the details of the above-described embodiments without departing from the underlying principles of the invention. The scope of the present invention should, therefore, be determined only by the following claims.

1. A holster for a service item, comprising:
  - a holster body defining a cavity and an opening sized to admit at least a portion of a service item into the cavity;
  - a hood supported for movement between a closed position wherein the hood extends over at least a portion of the opening to prevent the service item from being removed from the holster, and an open position wherein the hood is moved forwardly relative to the holster body to allow the service item to be removed from the holster; and
  - a lever operably coupled to the hood for driving the hood from the closed position toward the open position in response to movement of the lever.
2. A holster in accordance with claim 1 wherein the lever is geared to the hood.
3. A holster in accordance with claim 1 wherein the lever is coupled to the hood by a cam mechanism.
4. A holster in accordance with claim 1 wherein the hood is driven forwardly in response to movement of the lever in a direction other than forward.
5. A holster in accordance with claim 1 wherein the hood is driven forwardly in response to rearward movement of the lever.
6. A holster in accordance with claim 1 wherein the hood rotates about a hood pivot axis and the lever is supported on the holster body for rotation about a lever pivot axis that is substantially parallel to the hood pivot axis.
7. A holster in accordance with claim 1 further comprising a latch mechanism that releasably engages when the hood is in the closed position to inhibit the hood from being opened by an unauthorized person.
8. A holster in accordance with claim 7 wherein the latch mechanism is disengaged by manual operation of the lever.
9. A holster in accordance with claim 8 wherein at least a portion of the lever is moved in a first direction for disengaging the latch mechanism and in a second direction different from the first direction for driving the hood toward the open position.
10. A holster in accordance with claim 7 wherein:
  - the lever includes a first part of the latch mechanism;
  - the hood includes a second part of the latch mechanism; and
  - the first and second parts of the latch mechanism are aligned for engagement when the hood is moved to the closed position.
11. A holster in accordance with claim 1 further comprising a stop for preventing the hood from moving rearwardly from the closed position.

12. A holster in accordance with claim 1 further comprising an internal retention device that extends into the cavity to releasably secure the service item in the holster.

13. A holster in accordance with claim 1 wherein:

- the service item comprises a cocked handgun including a hammer and a firing pin; and

- the hood includes a blocking section that is interposed between the hammer and the firing pin when the cocked handgun is holstered and the hood is in the closed position, to thereby prevent the hammer from accidentally falling against the firing pin.

14. A holster in accordance with claim 1 wherein the hood is formed of a substantially rigid material.

15. A holster in accordance with claim 1 further comprising an electronic device responsive to movement of the hood.

16. A security hood assembly for a holster having a holster body that defines a cavity and an opening sized to admit at least a portion of a service item into the cavity, comprising:

- a hood adapted to be movably supported in association with the holster body so that the hood extends over at least a portion of the opening when the hood is in a closed position; and

- a lever coupled to the hood for driving the hood, the hood being responsive to operation of the lever for movement from the closed position wherein the hood prevents the service item from being removed from the holster toward an open position wherein the hood is moved forwardly relative to the holster body, to thereby allow the service item to be removed from the holster.

17. A security hood assembly in accordance with claim 16 wherein the lever is geared to the hood.

18. A security hood assembly in accordance with claim 16 wherein the lever is coupled to the hood by a cam mechanism.

19. A security hood assembly in accordance with claim 16 wherein the hood is driven forwardly in response to movement of the lever in a direction other than forward.

20. A security hood assembly in accordance with claim 16 wherein the hood is driven forwardly in response to rearward movement of the lever.

21. A security hood assembly in accordance with claim 16 wherein:

- the hood is rotatable about a hood pivot axis when supported on the holster body; and

- the lever is adapted to be rotatably supported on the holster body for rotation about a lever pivot axis that is substantially parallel to the hood pivot axis.

22. A security hood assembly in accordance with claim 16 further comprising a latch mechanism that releasably engages when the hood is in the closed position to prevent the hood from being opened.

23. A security hood assembly in accordance with claim 22 wherein the latch mechanism is disengaged by manual operation of the lever.

24. A security hood assembly in accordance with claim 22 wherein at least a portion of the lever is moved in a first direction for disengaging the latch mechanism and in a second direction different from the first direction for driving the hood toward the open position.

**25.** A security hood assembly in accordance with claim 16 further comprising a stop for preventing the hood from moving rearwardly from the closed position.

**26.** A security hood assembly in accordance with claim 16 wherein:

the service item comprises a cocked handgun including a hammer and a firing pin; and

the hood includes a blocking section that is interposed between the hammer and the firing pin when the cocked handgun is holstered and the hood is in the closed position, to thereby prevent the hammer from accidentally falling against the firing pin.

**27.** A security hood assembly in accordance with claim 16 wherein the hood is formed of a substantially rigid material.

**28.** A security hood assembly in accordance with claim 16 further comprising an electronic device responsive to movement of the hood.

**29.** A holster for a service item, comprising:

a body means for holding the service item and for defining a constrained draw path of the service item;

a hood supported in association with the body means, the hood movable between a closed position wherein the hood extends over at least a portion of the constrained draw path to prevent the service item from being removed from the holster, and an open position wherein the hood is moved out of the constrained draw path to allow the service item to be removed from the holster;

a lever movably supported on the body means and adjacent the hood; and

means for coupling the lever to the hood and for driving the hood from the closed position toward the open position in response to movement of the lever.

**30.** A holster in accordance with claim 29 further comprising means for releasably retaining the service item in the holster when the hood is in the open position.

**31.** A holster in accordance with claim 29 further comprising means for releasably locking the hood in the closed position.

**32.** A holster in accordance with claim 31 wherein:

the means for releasably locking is unlocked by moving at least a portion of the lever in a first direction relative to the body means; and

the hood is driven toward the open position in response to moving the lever in a second direction different from the first direction.

**33.** A holster in accordance with claim 31 wherein the service item comprises a cocked handgun and further comprising means for preventing a hammer of the cocked handgun from accidentally falling.

**34.** A security hood assembly for a holster having a holster body adapted to hold a service item and defining a draw path along which the service item must move when drawn from the holster, comprising:

a hood adapted to be movably supported in association with the holster body so that the hood extends over at least a portion of the draw path when the hood is in a closed position; and

a lever adapted to be operably coupled to the hood for driving the hood, the hood being responsive to opera-

tion of the lever for movement from the closed position wherein the hood prevents the service item from being removed from the holster toward an open position wherein the hood is moved out of the draw path to allow the service item to be removed from the holster.

**35.** A security hood assembly in accordance with claim 34 wherein the lever is coupled to the hood by a cam mechanism.

**36.** A security hood assembly in accordance with claim 34 wherein the hood is driven forwardly in response to movement of the lever in a direction other than forward.

**37.** A security hood assembly in accordance with claim 34 wherein the hood is driven forwardly in response to rearward movement of the lever.

**38.** A security hood assembly in accordance with claim 34 further comprising a latch mechanism that releasably engages when the hood is in the closed position to prevent the hood from being opened.

**39.** A security hood assembly in accordance with claim 38 wherein at least a portion of the lever is moved in a first direction relative to the hood for disengaging the latch mechanism and in a second direction different from the first direction for driving the hood toward the open position.

**40.** A security hood assembly in accordance with claim 34 wherein the hood includes a blocking section that is interposed between a hammer and a firing pin of a holstered cocked handgun when the hood is in the closed position, to thereby prevent the hammer from accidentally falling against the firing pin.

**41.** A security hood assembly in accordance with claim 34 wherein the hood is formed of a substantially rigid material.

**42.** In a holster of the type including a holster body for holding a service item and for defining a constrained draw path of the service item, the improvement comprising:

a hood formed of a substantially rigid material and supported in association with the holster body for movement between a closed position wherein the hood extends over at least a portion of the constrained draw path to prevent the service item from being removed from the holster, and an open position wherein the hood is moved out of the constrained draw path to allow the service item to be removed from the holster.

**43.** A holster in accordance with claim 42 wherein the hood is formed of a molded resin.

**44.** A holster in accordance with claim 42 wherein the hood includes a spanning portion that extends over the holstered service item when the hood is in the closed position and a front skirt depending downwardly from the spanning portion.

**45.** A holster in accordance with claim 42 wherein the service item includes a cocked handgun and the hood includes a blocking section that is interposed between a hammer and a firing pin of the cocked handgun when the cocked handgun is holstered and the hood is in the closed position, to thereby prevent the hammer from accidentally falling against the firing pin.

**46.** A holster in accordance with claim 42 wherein the hood is rotatably supported on the holster body.

**47.** A holster in accordance with claim 42 further comprising a lever operably coupled to the hood for driving the hood from the closed position toward the open position in response to movement of the lever.

**48.** A holster in accordance with claim 47 wherein the lever is coupled to the hood by a cam mechanism.

49. A holster in accordance with claim 42 further comprising a stop for preventing the hood from moving rearwardly from the closed position.

50. A holster in accordance with claim 42 further comprising an internal retention device.

51. A holster in accordance with claim 42 further comprising an electronic device responsive to movement of the hood.

52. A security hood assembly for a holster having a holster body adapted to hold a service item and defining a draw path along which the service item must move when drawn from the holster, comprising:

- a hood formed of a substantially rigid material and adapted to be supported in association with the holster body for movement between a closed position wherein the hood extends over at least a portion of the constrained draw path to prevent the service item from being removed from the holster, and an open position wherein the hood is moved out of the constrained draw path to allow the service item to be removed from the holster.

53. A security hood assembly in accordance with claim 52 wherein the hood is formed of a molded resin.

54. A security hood assembly in accordance with claim 52 wherein the hood includes a spanning portion that extends over the holstered service item when the hood is in the closed position and a front skirt depending downwardly from the spanning portion.

55. A security hood assembly in accordance with claim 52 wherein:

- the service item comprises a cocked handgun including a hammer and a firing pin; and

the hood includes a blocking section that is interposed between the hammer and the firing pin when the cocked handgun is holstered and the hood is in the closed position, to thereby prevent the hammer from accidentally falling against the firing pin.

56. A security hood assembly in accordance with claim 52 wherein the hood is adapted to be rotatably supported on the holster body.

57. A security hood assembly in accordance with claim 52 further comprising a lever operably coupled to the hood for driving the hood from the closed position toward the open position in response to movement of the lever.

58. A security hood assembly in accordance with claim 57 wherein the lever is coupled to the hood by a cam mechanism.

59. A security hood assembly in accordance with claim 52 further comprising a stop for preventing the hood from moving rearwardly from the closed position.

60. A security hood assembly in accordance with claim 52 further comprising an electronic device responsive to movement of the hood.

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