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(54) **METHODS AND APPARATUS FOR  
HANDS-FREE DISPOSAL OF MEDICAL  
WASTE PRODUCTS**

**Publication Classification**

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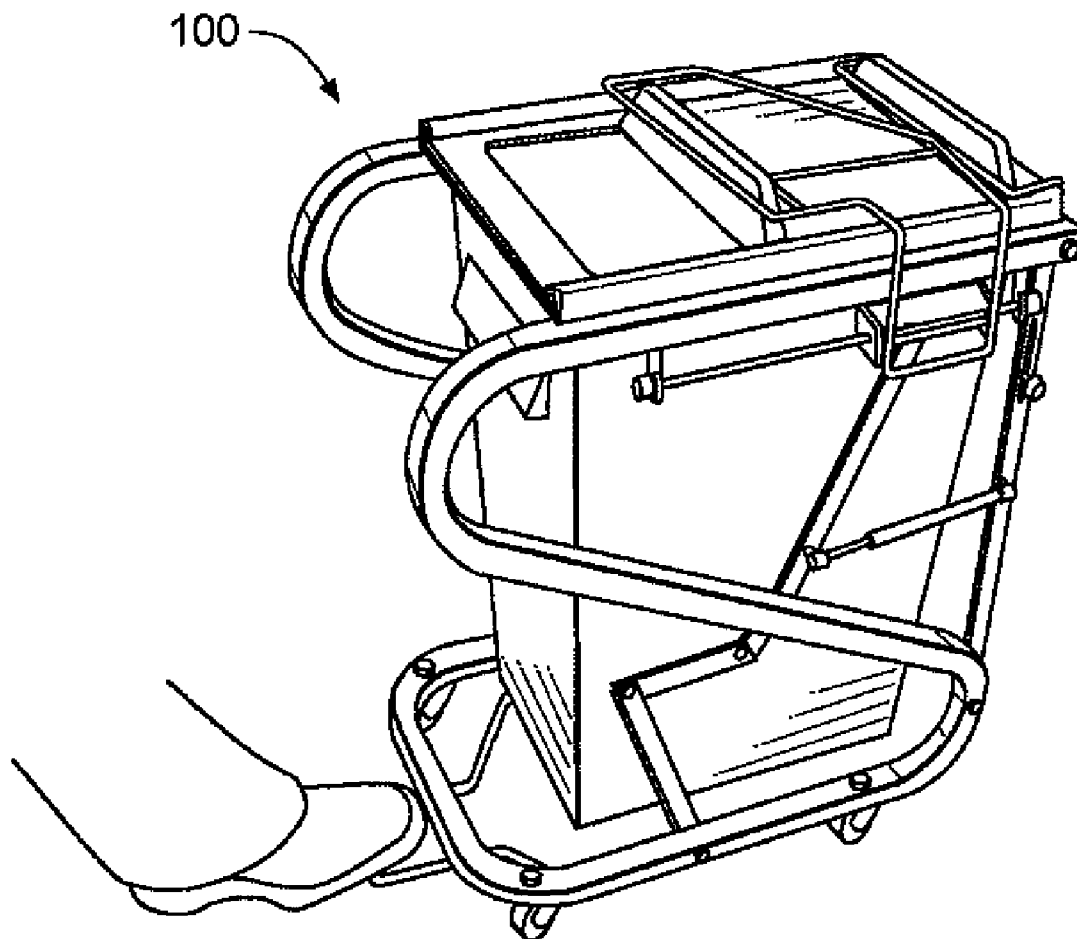
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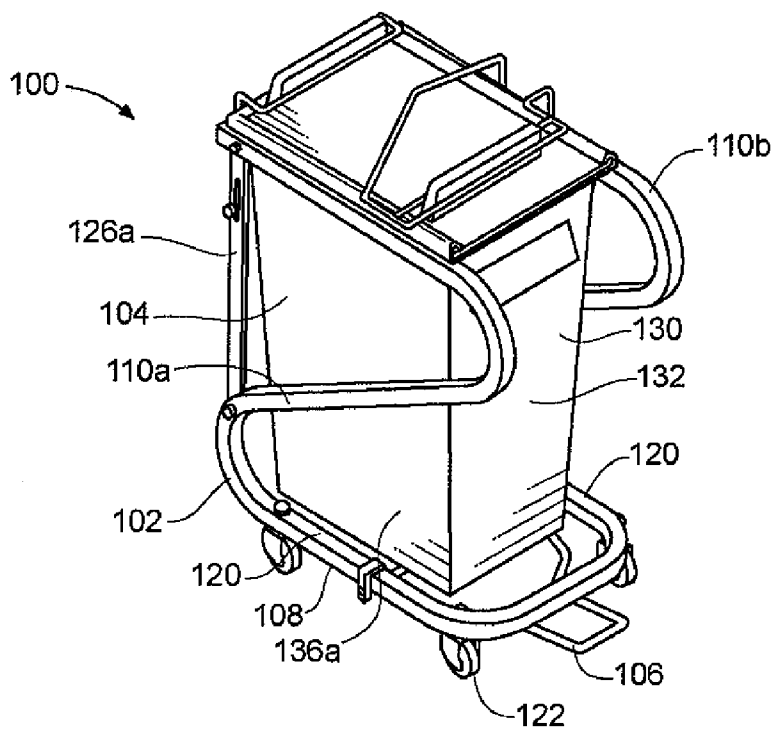
(60) Provisional application No. 60/901,400, filed on Feb. 15, 2007.

(57) **ABSTRACT**

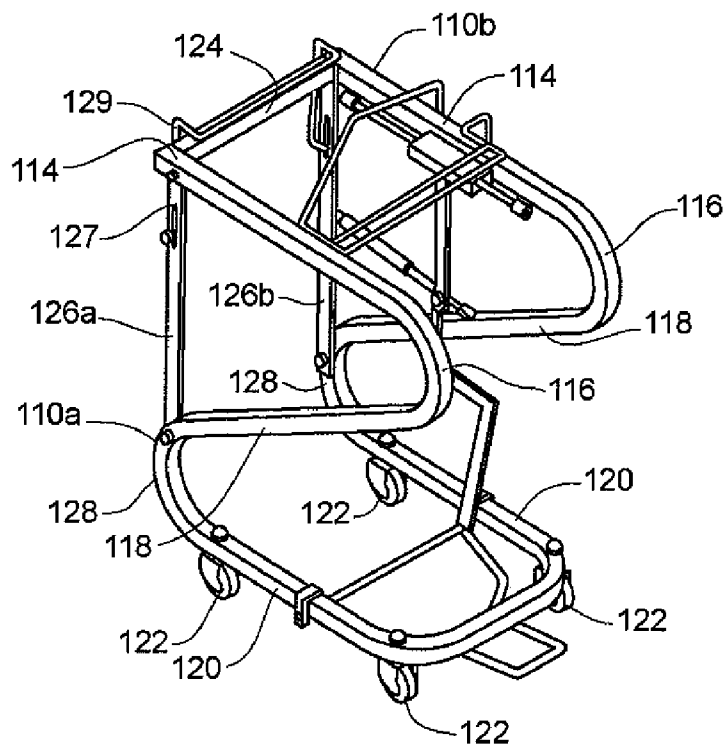
A portable medical waste disposal assembly that offers convenience and safety during use, disposal and maintenance of the disposal assembly. The portable and sanitizable medical waste disposal assembly includes a waste receptacle mounted within a unitary frame providing increased strength and stability to the disposal assembly so as to facilitate transport and sanitization. A positive closure system mounts to the unitary frame and operably interconnects to a slidable lid on the waste receptacle such that the waste receptacle is maintained in a closed disposition unless specifically opened by a user. The positive closure system can be adapted so as to adjustably retain the waste receptacle within the unitary frame while allowing for quick release of the waste receptacle at a time of disposal of the receptacle's contents.



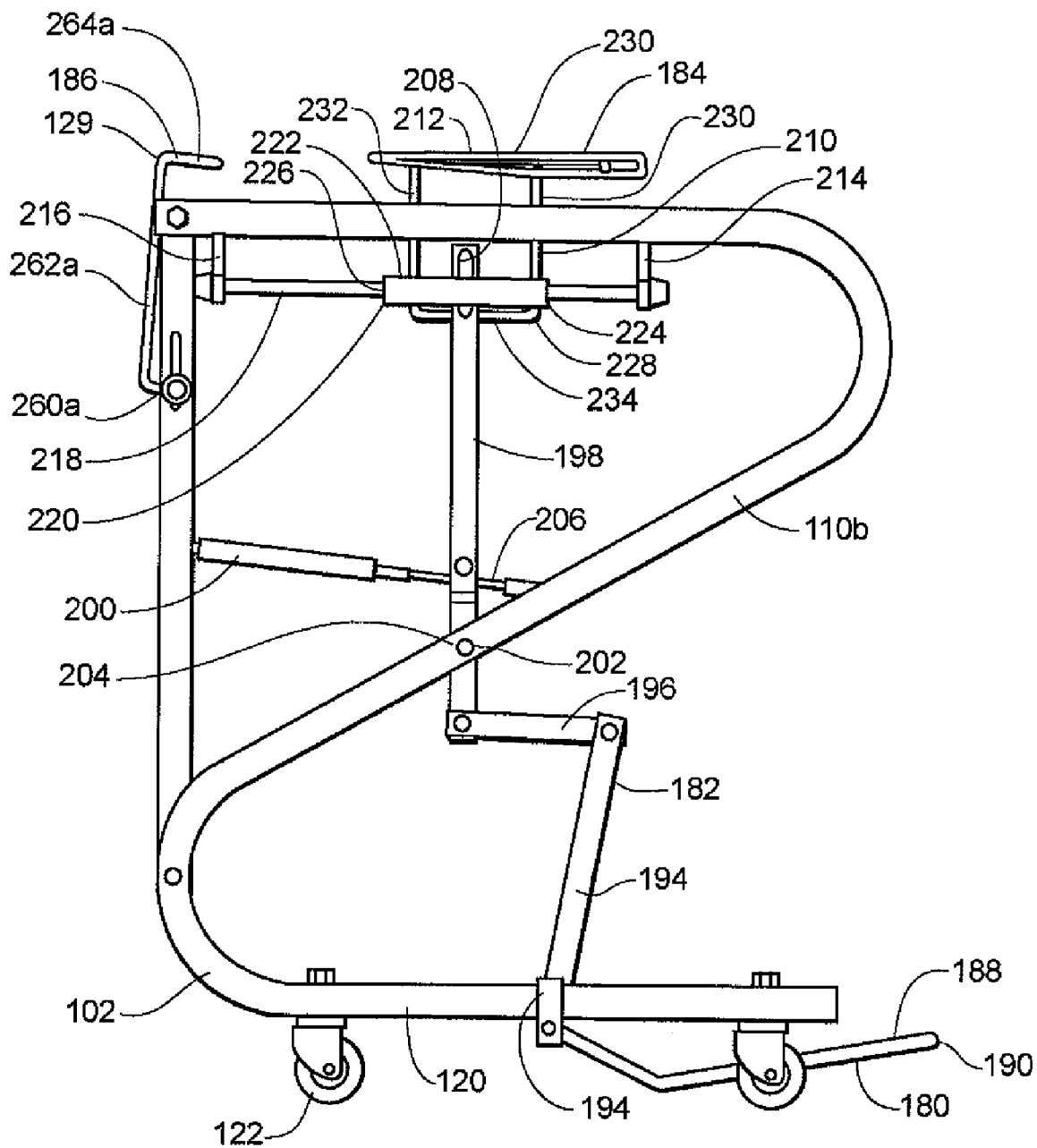
**Fig. 1**



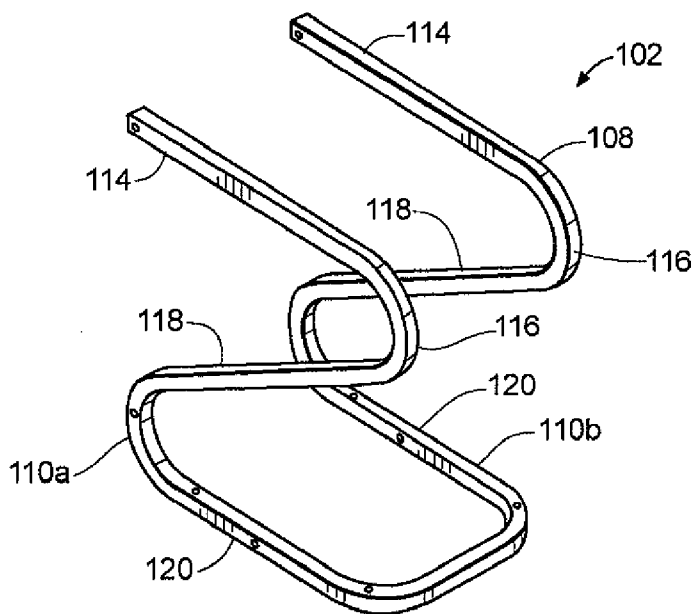
**Fig. 2**



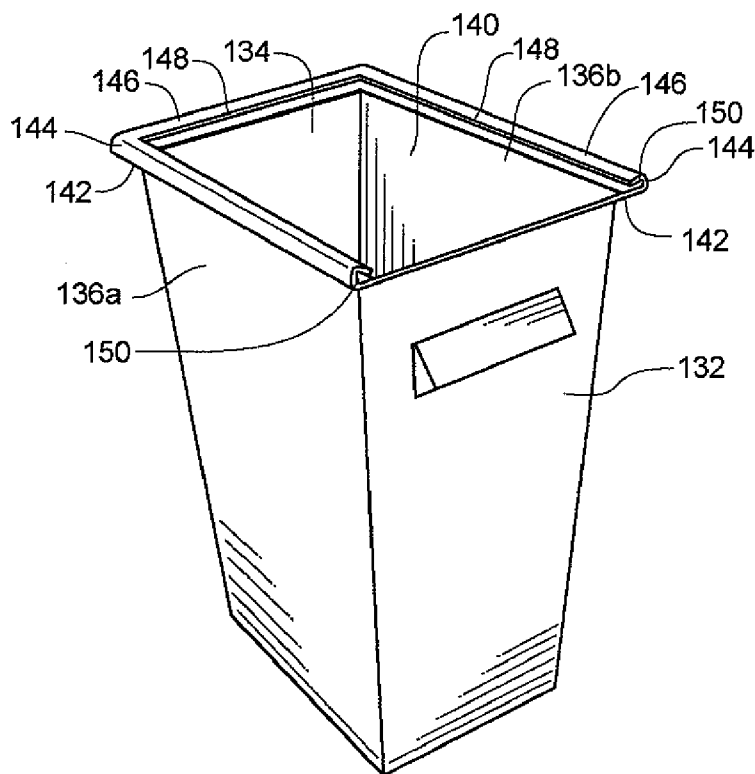
**Fig. 3**



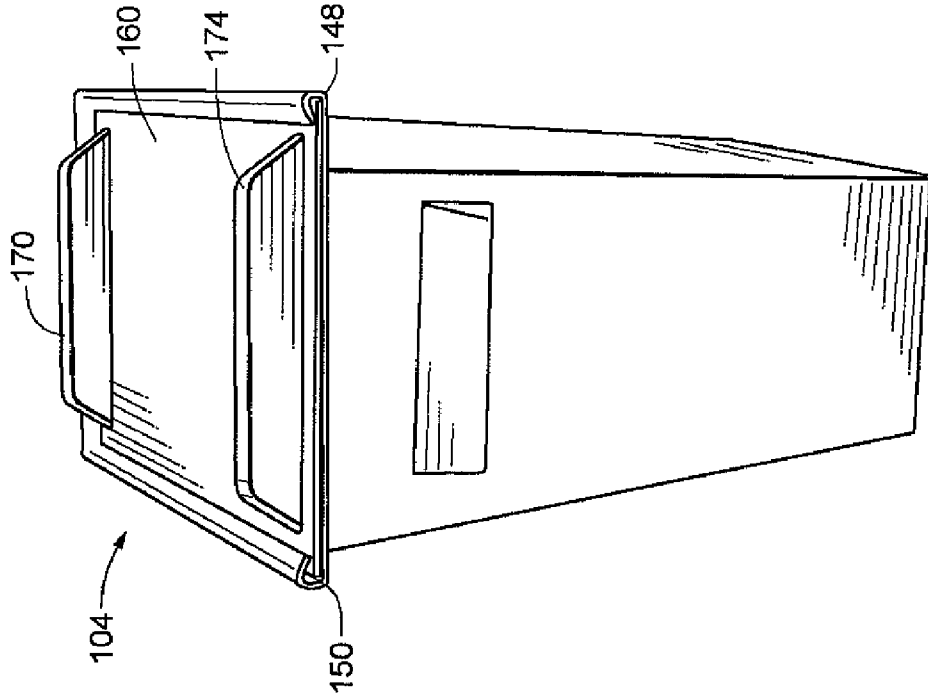
**Fig. 4**



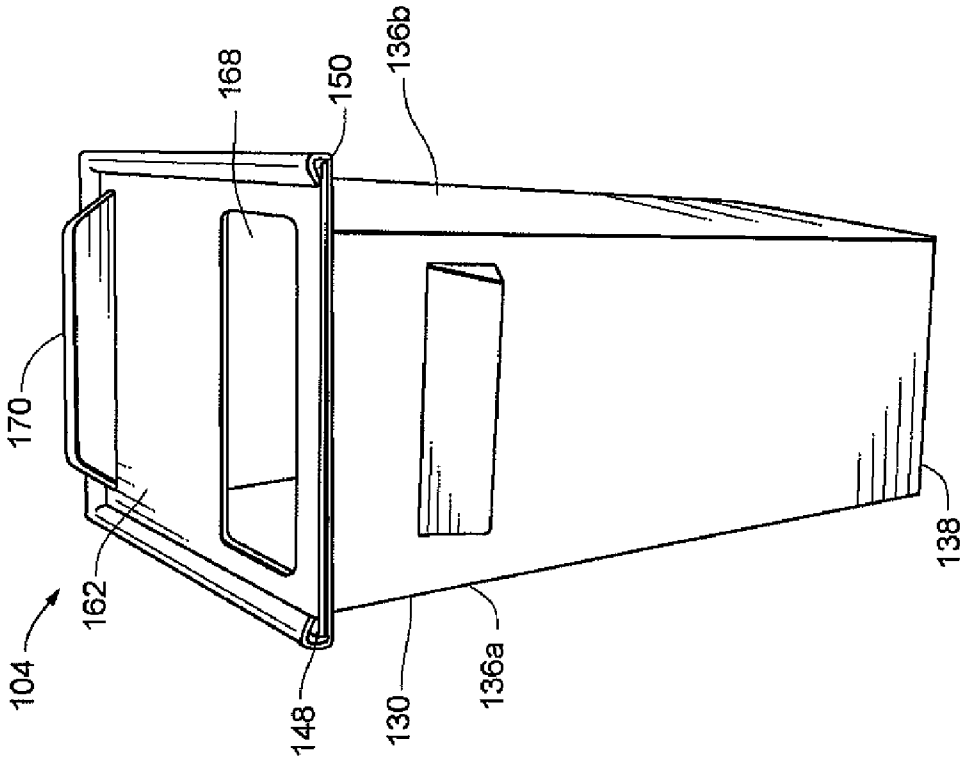
**Fig. 5**



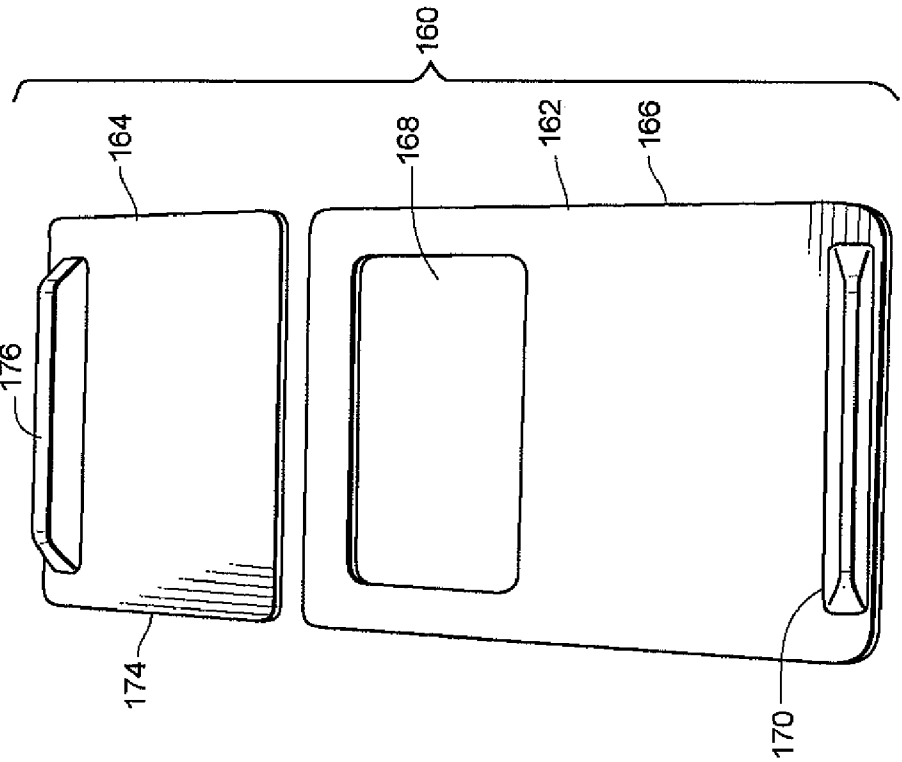
**Fig. 7**



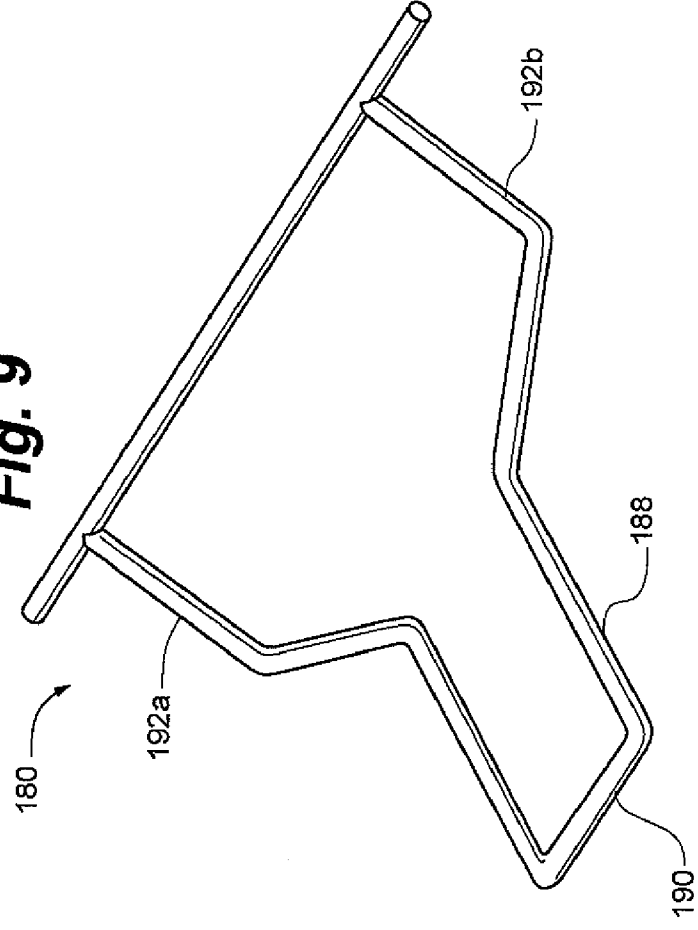
**Fig. 6**



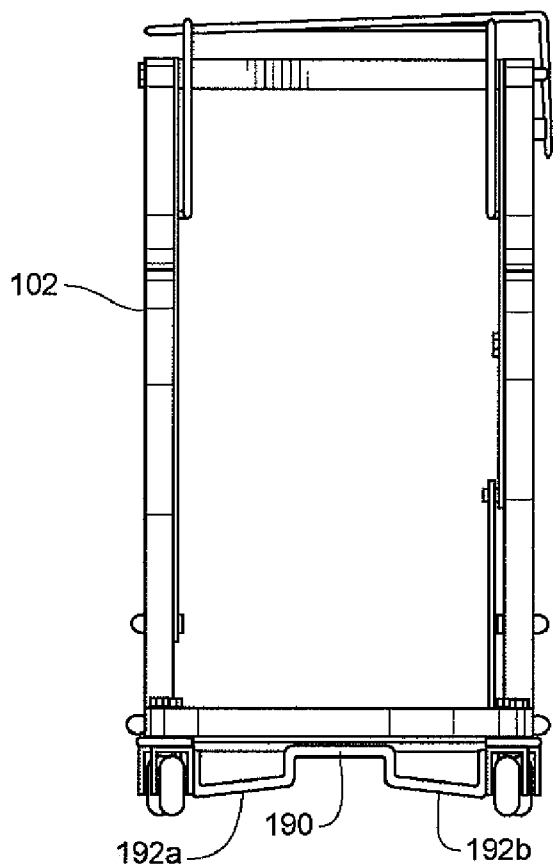
**Fig. 8**



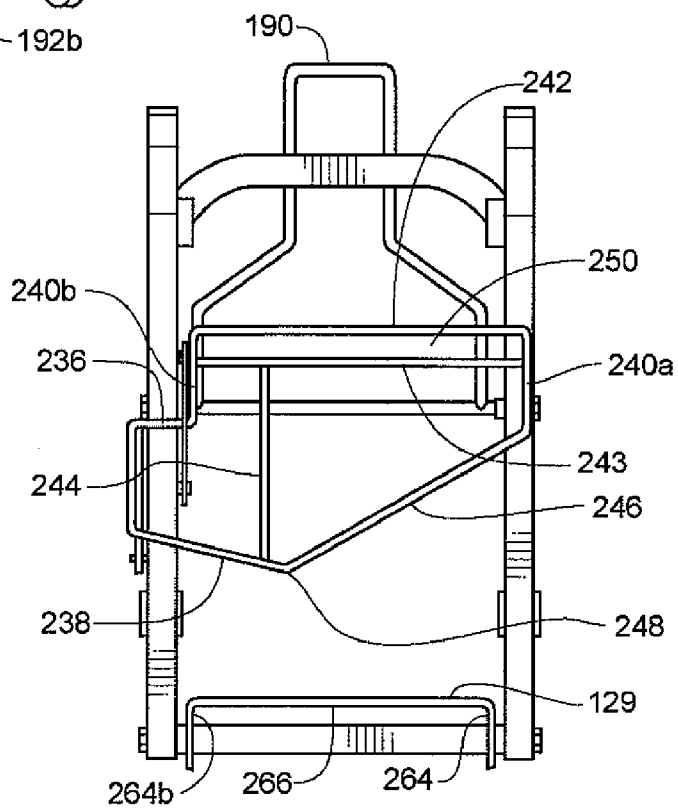
**Fig. 9**



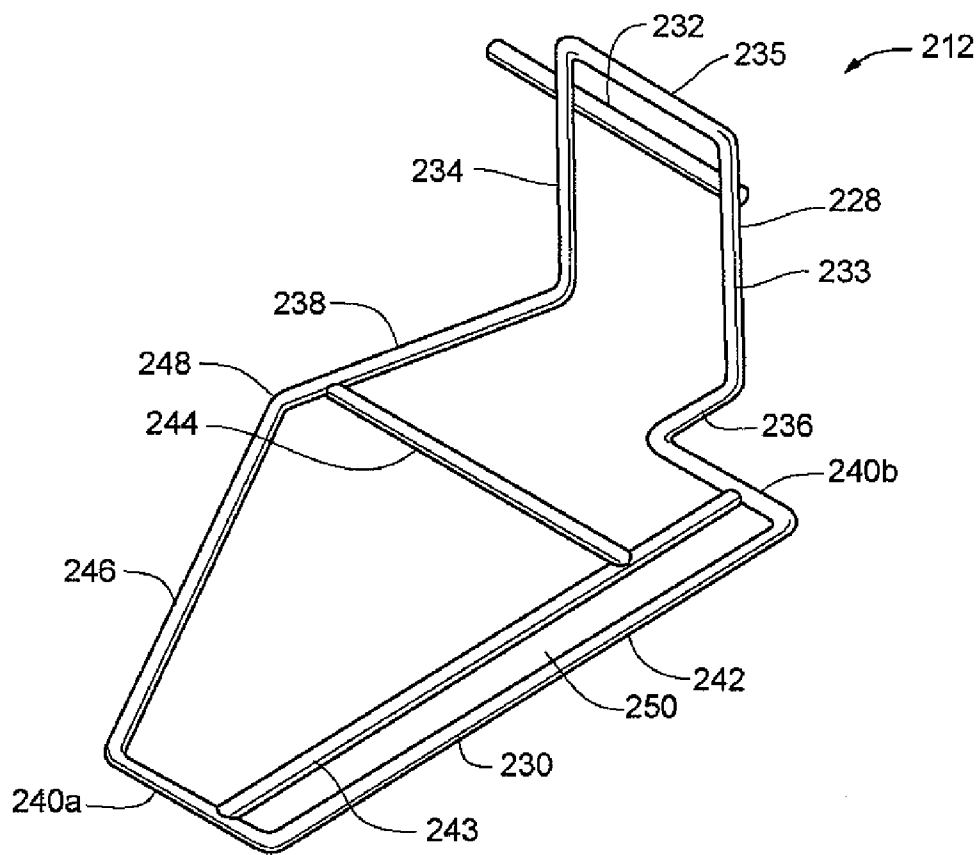
**Fig. 10**



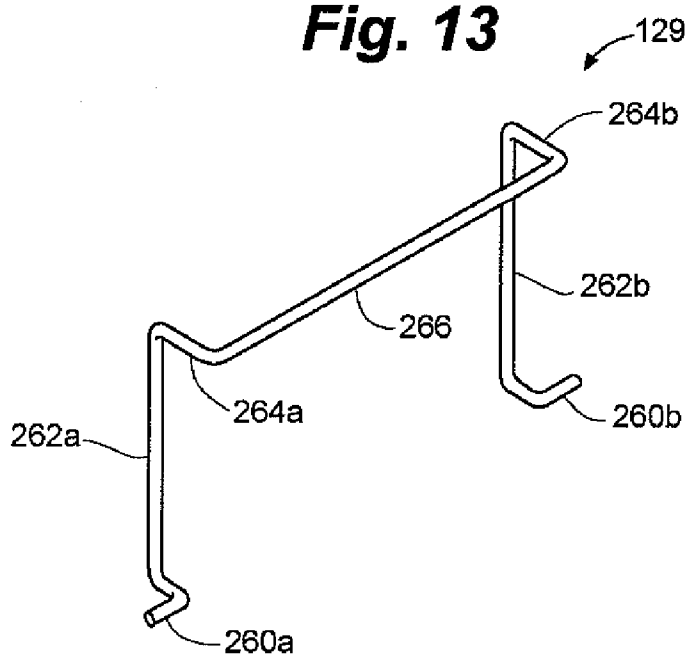
**Fig. 11**



**Fig. 12**

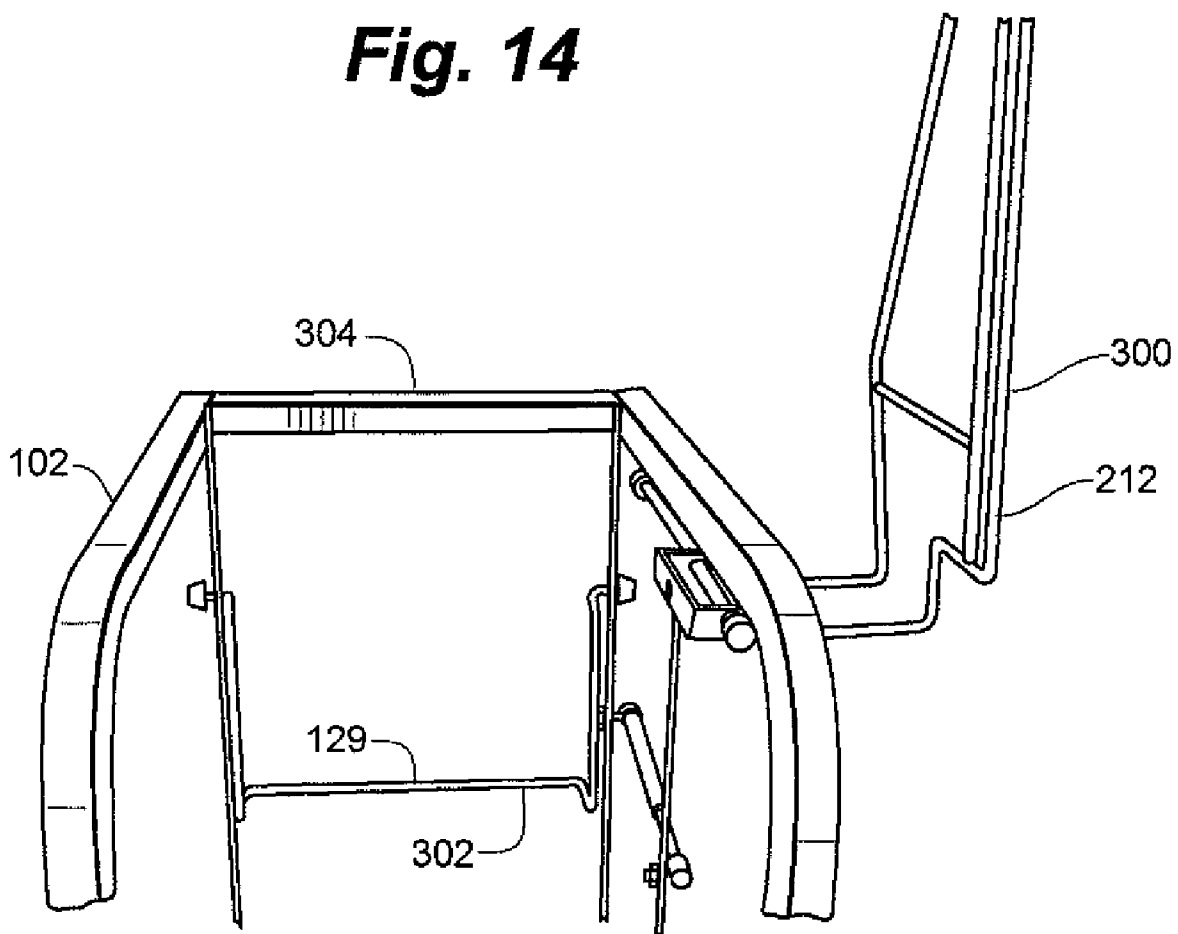


**Fig. 13**

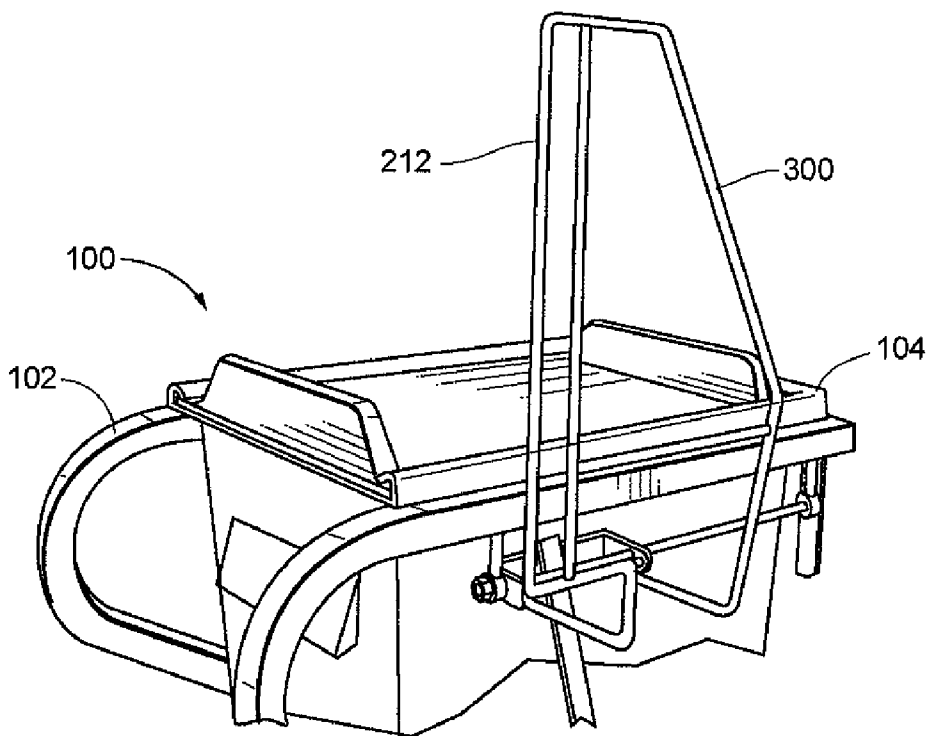




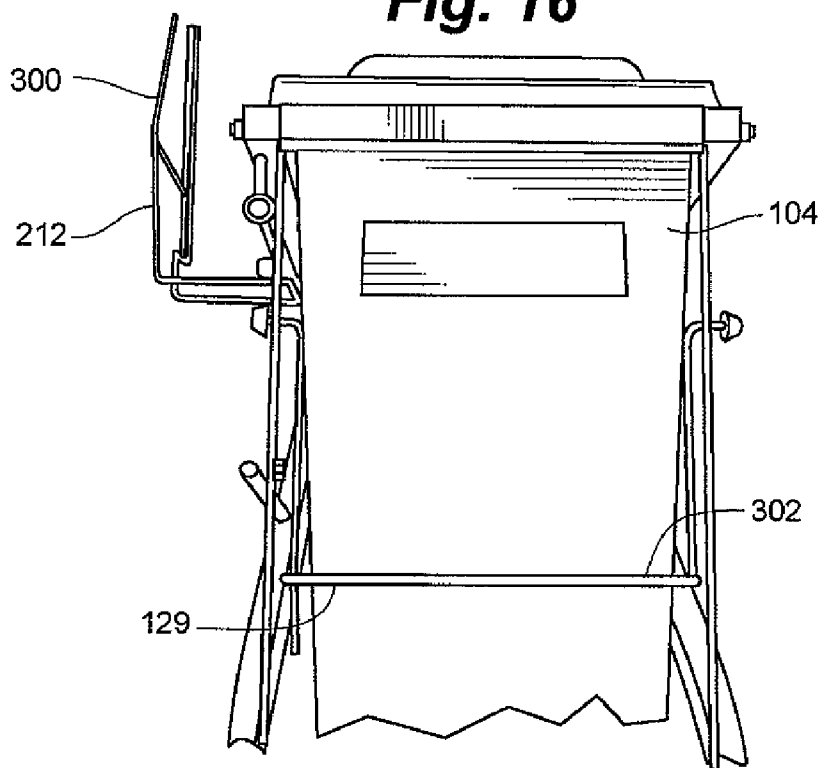
**Fig. 14**



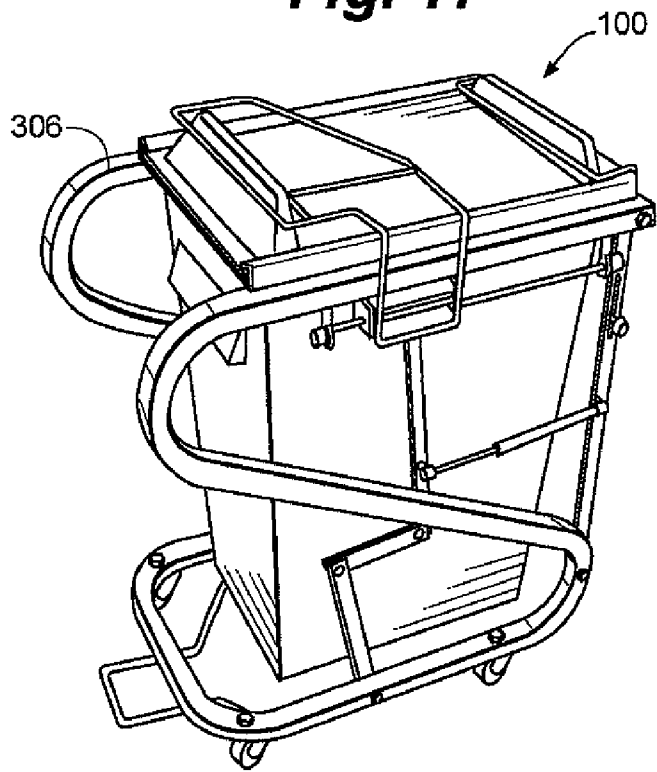
**Fig. 15**



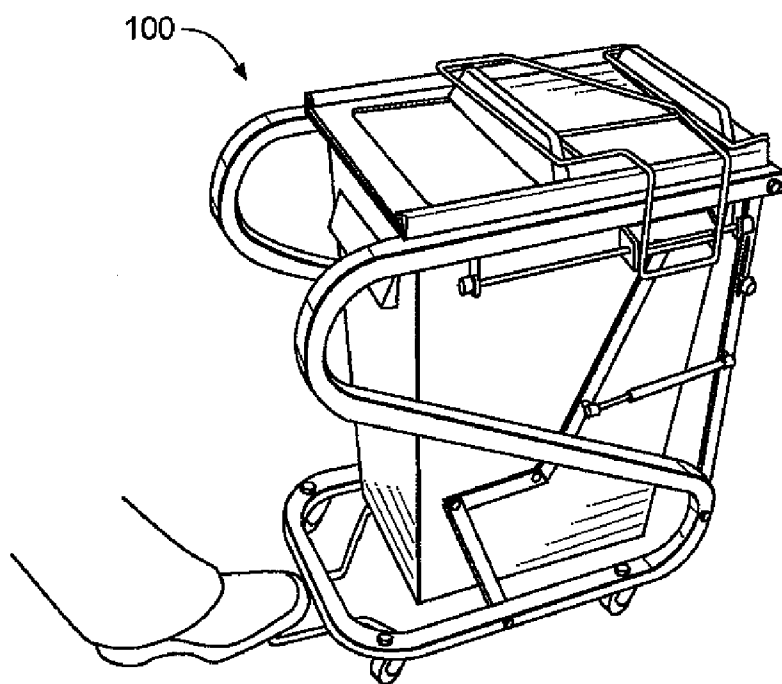
**Fig. 16**



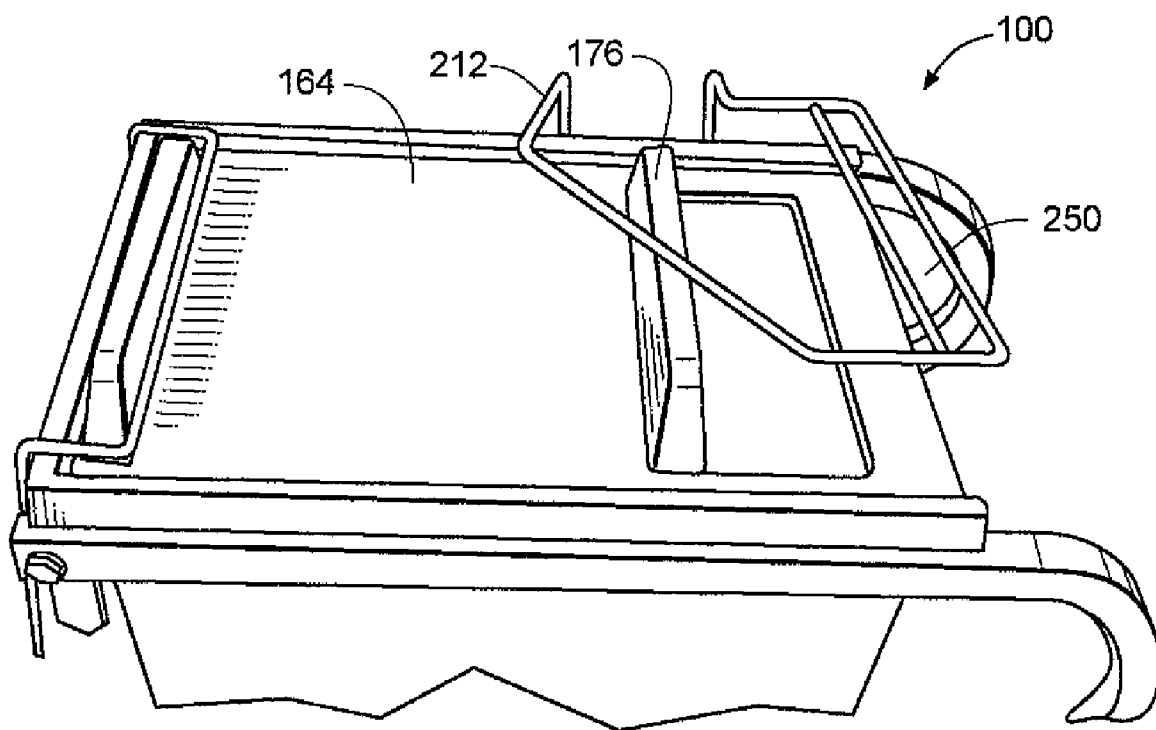
**Fig. 17**



**Fig. 18**



**Fig. 19**



**METHODS AND APPARATUS FOR HANDS-FREE DISPOSAL OF MEDICAL WASTE PRODUCTS**

**RELATED APPLICATION**

[0001] The present application claims the benefit of U.S. Provisional Application No. 60/901,400 filed Feb. 15, 2007, which is incorporated herein in its entirety by reference.

**FIELD OF THE INVENTION**

[0002] The present invention relates to a container for disposal of medical waste. More specifically, the present invention relates to a portable and sanitizable disposal assembly providing for hands free operation of a normally closed container access.

**BACKGROUND OF THE INVENTION**

[0003] Containers for the disposal of used medical devices and equipment are well known. Generally, these containers are designed to clearly spell out their hazardous contents such that medical professionals know to take extra care when disposing of contaminated and/or used items. Careful use of these containers are necessary not only because of the possible biohazards such as blood and other fluids but also because of the physical nature of the piercing and/or cutting nature of the products including needles, glass and cutting instruments.

[0004] In clinical, laboratory and hospital settings, it is very common to have wall mounted or floor positionable receptacles for depositing contaminated and used items. Often times, specially marked bags are positioned within the receptacles such that the bag can be removed and disposed of either as it is filled or at regular intervals. Unfortunately, the use of such bags requires an individual to handle the bags, such handling potentially leading to accidental exposure of the individual to the contaminated materials.

[0005] In order to reduce the potential for such exposure, a variety of hands-free devices have been developed that allow a container to be used and subsequently transported to a designated disposal site while substantially eliminating the necessity for the individual to come into contact with the container. Examples of said hands-free devices include devices available from Tyco Healthcare including the SHARPSCART® hands-free device as well as the versions disclosed in U.S. Pat. No. 7,114,629 and its related applications, all which are herein incorporated by reference.

[0006] While these prior art devices have helped to increase safety in using these medical waste receptacles, it would be advantageous to further improve on known designs to increase functionality and safety.

**SUMMARY OF THE INVENTION**

[0007] The invention addresses the aforementioned needs by providing for a portable and sanitizable medical waste disposal assembly that offers convenience and safety during use, disposal and maintenance of the disposal assembly. The portable and sanitizable medical waste disposal assembly generally comprises a waste receptacle mounted within a unitary frame providing increased strength and stability to the disposal assembly so as to facilitate transport and sanitization. The unitary frame can include a handle portion providing a handle region for secure direction of the disposal assembly to points of use, disposal or sanitization. A positive

closure system mounts to the unitary frame and operably interconnects to a slidable lid on the waste receptacle such that the waste receptacle is maintained in a closed disposition unless specifically opened by a user. The positive closure system includes a footpedal such that the slidable lid is openable so as to provide hand-free operation and eliminate the necessity of operator contact proximate the slidable lid. The positive closure system can provide an initial opening resistance as the footpedal is operated so as to reduce the potential for unintentional operation and opening of the slidable lid. The positive closure system can be adapted so as to adjustably retain the waste receptacle within the unitary frame while allowing for quick release of the waste receptacle at a time of disposal of the receptacle's contents. In addition, the positive closure system can be configured to reset its capture and control of the slidable lid following emptying of the waste receptacle or in the event that capture of the slidable lid by the positive closure system is disrupted.

[0008] In one aspect of the present disclosure, the present application is directed to a portable and sanitizable medical waste disposal assembly comprising a waste receptacle, a unitary frame and a positive closure system. The waste receptacle can be mounted within the unitary frame, wherein the positive closure system retains the waste receptacle within the unitary frame. The unitary frame is preferably fabricated of easily cleanable and/or sanitizable materials such as, for example, painted carbon steel, aluminum, stainless steel and suitable polymers. The unitary frame generally includes casters such that a handle portion provides for easy manipulation of the medical waste disposal assembly during use, disposal or sanitization. The positive closure system attaches to the unitary frame and operably interfaces with a slidable lid on the waste receptacle such that the slidable lid is biased in a normally closed disposition. The positive closure system includes a footpedal providing for hands free operation of the medical waste disposal system. In some presently preferred embodiments, the positive closure system can include a biasing element providing an initial resistance to an operator such that non-intentional opening of the slidable lid is avoided. The positive closure system can include a retaining member and a capture member for positively retaining the waste receptacle within the unitary frame and to allow recapture of the waste receptacle should the interconnection of the positive closure system and slidable lid be disrupted during use or waste disposal.

[0009] In another aspect of the present disclosure, a method for providing hands free disposal of medical waste can include fabricating a unitary frame to increase overall strength and maneuverability of a medical waste disposal assembly. The unitary frame can include a handle portion allowing for easy maneuvering of the medical waste disposal assembly. The method can further include mounting a waste receptacle within the unitary frame and releasably capturing the waste receptacle with a hands free access assembly. The method can further include configuring the hands free access assembly to maintain the waste receptacle in a normally closed disposition. In some embodiments, the method can further include providing an increased initial opening resistance so as to avoid accidental opening of the waste receptacle.

[0010] In yet another aspect of the present disclosure, a portable medical waste disposal system can comprise a unitary frame, a closable waste receptacle and a hands free opening assembly. The hands free opening assembly simulta-

neously retains the waste receptacle within the unitary frame while providing for hands free opening and closing of a slidable lid on the waste receptacle.

[0011] The above summary of the various aspects of the disclosure is not intended to describe each illustrated embodiment or every implementation of the invention. The figures in the detailed description that follow more particularly exemplify these embodiments.

#### BRIEF DESCRIPTION OF THE DRAWINGS

[0012] These, as well as other objects and advantages of this invention, will be more completely understood and appreciated by referring to the following more detailed description of the presently preferred exemplary embodiments of the invention in conjunction with the accompanying drawings, of which:

[0013] FIG. 1 is a perspective view of an embodiment of a portable medical waste disposal system of the present disclosure.

[0014] FIG. 2 is a perspective view of a unitary frame of the portable medical waste disposal system of FIG. 1.

[0015] FIG. 3 is a side view of the unitary frame of FIG. 2.

[0016] FIG. 4 is a perspective view of the unitary frame of FIG. 2.

[0017] FIG. 5 is a perspective view of a waste receptacle of the portable medical waste disposal system of FIG. 1.

[0018] FIG. 6 is a perspective view of the waste receptacle of FIG. 5 including a portion of a lid assembly.

[0019] FIG. 7 is a perspective view of the waste receptacle of FIG. 5 including a lid assembly.

[0020] FIG. 8 is a perspective, exploded view of the lid assembly used in FIG. 7.

[0021] FIG. 9 is a perspective view of an interface assembly of the portable medical waste disposal system of FIG. 1.

[0022] FIG. 10 is a front view of the unitary frame of FIG. 2.

[0023] FIG. 11 is a top view of the unitary frame of FIG. 2.

[0024] FIG. 12 is a perspective view of a capture assembly of the portable medical waste disposal system of FIG. 1.

[0025] FIG. 13 is a perspective view of a retention member of the portable medical waste disposal system of FIG. 1.

[0026] FIG. 14 is a perspective view of the unitary frame of FIG. 2.

[0027] FIG. 15 is a perspective view of the portable medical waste disposal system of FIG. 1.

[0028] FIG. 16 is a rear view of the portable medical waste disposal system of FIG. 1.

[0029] FIG. 17 is a perspective view of the portable medical waste disposal system of FIG. 1.

[0030] FIG. 18 is a perspective view of the portable medical waste disposal system of FIG. 1.

[0031] FIG. 19 is a perspective view of the portable medical waste disposal system of FIG. 1.

[0032] While the invention is amenable to various modifications and alternative forms, specifics thereof have been shown by way of example in the drawings and will be described in detail. It should be understood, however, that the intention is not to limit the invention to the particular embodiments described. On the contrary, the intention is to cover all

modifications, equivalents, and alternatives falling within the spirit and scope of the invention as defined by the appended claims.

#### DETAILED DESCRIPTION OF THE INVENTION

[0033] As illustrated in FIG. 1, a portable medical waste disposal assembly, hereafter referred to waste disposal assembly 100, generally comprises a unitary frame 102, a waste receptacle 104 and a hands-free actuation assembly 106. Waste disposal assembly 100 can comprise any of a variety of suitable sizes dependent upon the setting in which the assembly is utilized and the types of waste items being generated within said setting. The materials utilized in constructing waste disposal assembly 100 generally comprise materials suitable for exposure to cleaning and sanitizing environments including, for example, painted carbon steel, aluminum, stainless steel as well as suitable polymeric materials.

[0034] Referring to FIGS. 1, 2, 3, and 4, unitary frame 102 generally comprises a single frame member 108 manipulated to form a pair of side members 110a, 110b. Side members 110a, 110b are preferably arranged in a mirror-image fashion defining an upper mounting portion 114, an upper handle portion 116, a side retaining portion 118, and a lower mounting portion 120. The lower mounting portion 120 on each side member 110a, 110b can include a pair of caster assemblies 122. In some embodiments, caster assemblies 122 can comprise selectively lockable casters for retaining the waste disposal assembly 100 in a desired location during use. At a rear portion of the unitary frame 102, a cross member 124 can interconnect the upper mounting portion 114 of each side member 110a, 110b while a pair of mounting arms 126a, 126b are attached between the upper mounting portion 114 and a lower transition portion 128 on each side member 110a, 110b. Mounting arms 126a, 126b each include a retainer channel 127 for operable connection to a quick-release retainer member 129.

[0035] Referring to FIGS. 1, 5, 6 and 7, waste receptacle 104 generally comprises a container 130 having a front wall 132, a rear wall 134, a pair of side walls 136a, 136b, a floor 138 and a top opening 140. At top opening 140, a flanged upper surface 142 extends from the front wall 132, rear wall 134, and side walls 136a, 136b. Along the rear wall 134 and side walls 136a, 136b, a vertical track surface 144 projects upward from the flanged upper surface 142. A horizontal track surface 146 projects inward from the vertical track surface 144 such that the flanged upper surface 142, vertical track surface 144 and horizontal track surface 146 cooperatively define an access track 148. At the front wall 132, access track 148 includes a track opening 150.

[0036] Referring to FIGS. 6, 7 and 8, a lid assembly 160 comprising a bottom stationary member 162 and an upper slidable member 164 is operably mounted within the access track 148. Bottom stationary member 162 generally comprises a sheet 166 that is slightly larger than the top opening 140 but smaller than the access track 148 such that the bottom stationary member 162 can be positioned within the access track 148 by sliding the bottom stationary member 162 through the track opening 150. Sheet 166 generally includes a disposal aperture 168 and an upwardly projecting retention member 170. Upper slidable member 164 generally comprises a solid sheet 174 having an upwardly projecting biasing member 176. Solid sheet 174 generally has a similar width as sheet 166 such that the upper slidable member 164 is slidably

insertable into the access track **148** through track opening **150**. Solid sheet **174** must be at least large enough to fully cover the disposal aperture **168** when the solid sheet **174** is positioned directly above the disposal aperture **168**.

[0037] As illustrated in FIG. 3, hands-free actuation assembly **106** generally comprises an interface assembly **180**, a linkage assembly **182**, a biasing assembly **184** and a retention assembly **186**. Interface assembly **180** as depicted in FIGS. 9 and 10 can comprise an interface member **188** defining a foot pedal **190** and a pair of mounting arms **192a**, **192b**. Using mounting arms **192a**, **192b**, interface member **188** can be rotatably attached to the unitary frame **102** using mounting arm bores **194** in the lower mounting portion **120** of each side member **110a**, **110b**.

[0038] Referring to FIG. 3, linkage assembly **182** generally comprises a first link member **194**, a second link member **196**, a third link member **198** and a pressurized cylinder **200**. First link member **194** is fixedly attached to mounting arm **192b** such that operation of foot pedal **190** translates articulating movement to the linkage assembly **182**. Third link member **198** includes a link bore **202** for rotatably attaching the third link member **198** to the side retaining portion **118** on side member **110b** so as to define a pivot point **204**. The pressurized cylinder **200** is mounted between the third link member **198** and mounting arm **126b** such that a cylinder arm **206** attaches to the third link member **198** between the pivot point **204** and mounting arm **126b**.

[0039] As illustrated in FIGS. 3, 11 and 12, biasing assembly **184** can comprise a slider assembly **210** and a capture assembly **212**. Slider assembly **210** can comprise a front mounting member **214**, a rear mounting member **216**, a slide arm **218** and a slider bracket **220**. Front mounting member **214** and rear mounting member **216** can each include a mounting bore (not shown) for receivably mounting the slide arm **218**. Front mounting member **214** and rear mounting member **216** can be attached to an under side of the upper mounting portion **114** on side member **110b**. Slider bracket **220** can include a mounting surface **222**, a front slider surface **224** and a rear slider surface **226**. Mounting surface **222** includes a mounting bore (not shown) for operable connection to a link channel **208** in the third link member **198**. Front slider surface **224** and rear slider surface **226** each include a slider bore (not shown) to accommodate the slide arm **218** as well as a connecting bore (not show) for rotatable interconnection of the capture assembly **212**. Capture assembly **212** generally comprises a rotatable mounting portion **228** and a capture portion **230** that are arranged in generally perpendicular orientation. Rotatable mounting portion **228** includes a rotation arm **232**, a front attachment arm **233**, a rear attachment arm **234** and a connecting arm **235**. Capture portion **230** includes a front connecting arm **236**, a rear connecting arm **238**, a pair of side arms **240a**, **240b**, a forward capture arm **242**, a rear capture arm **243**, a support arm **244** and a rear contact arm **246**. Rear attachment arm **232** and rear contact arm **246** operably interconnect at a rearmost contact point **248**. Front connecting arm **236**, rear connecting arm **238** and side arms **240a**, **240b** cooperatively define a capture region **250**. Capture region **250** generally defines an area slightly larger than a top cross-sectional area of upwardly projecting biasing member **176**.

[0040] Referring to FIG. 13, quick-release retainer member **129** generally comprises a unitary member having a pair of adjustment arms **260a**, **260b**, a pair of vertical retainer arms **262a**, **262b**, a pair of retainer side arms **264a**, **264b** and a

retainer arm **266**. Retainer side arms **264a**, **264b** are sized such that when vertical retainer arms **262a**, **262b** are placed in a vertical disposition, retainer arm **266** resides in a forward position with respect to the upwardly projecting retention member **170** on bottom stationary member **162**.

[0041] Prior to using waste disposal assembly **100**, waste receptacle **104** must be attached and secured within the unitary frame **102**. To accomplish said attachment, the user rotatably positions the capture assembly **212** to a non-capture disposition **300** as shown in FIG. 14. This is generally accomplished by grasping the capture portion **230** and lifting upwards such that the capture assembly **212** rotates about the rotation arm **232**. Next the quick release member **129** is placed in a non-retaining disposition **302** by lifting and directing the retainer arm **266** in a rearward direction such that the quick release member **129** rotates rearward around the adjustment arms **260a**, **260b**. With the capture assembly **212** in non-capture disposition **300** and quick release member **129** in non-retaining disposition **302**, unitary frame **102** is in an open receiving disposition **304**. The user then positions the waste receptacle **104** such that the flanged upper surface **142** sets onto and is supported by the upper mounting portion **114** of each side member **110a**, **110b** and the cross member **124** as illustrated in FIGS. 15 and 16. Once the waste receptacle is positioned within unitary frame **102**, capture portion **230** is lifted upward such that the capture assembly **212** rotates about the rotation arm **232** and capture region **250** is positioned over and around the upwardly projecting biasing member **176**. Finally, retainer arm **266** is lifted up and over the upwardly projecting retention member **170** wherein it is subsequently released such that it falls on a forward side of the upwardly projecting retention member **170** so as prevent forward movement of the bottom stationary member **162**. With upwardly projecting biasing member **176** positioned within capture region **250** and retainer arm **266** positioned forward of the upwardly projecting retention member **170**, waste disposal assembly **100** is arranged in an operational disposition **306** as illustrated in FIG. 17.

[0042] Prior to disposing of waste contents within the waste disposal assembly **100**, a user directs the waste disposal assembly **100** to a desired location by grasping and manipulating unitary frame **102** with the upper handle portion **116** on one or both of the side members **110a**, **110b**. Once the waste disposal assembly **100** has been positioned, the user can in some embodiments lock the caster assemblies **122** so as to maintain the desired location and orientation. Should the user desire to reposition the waste disposal assembly **100** or if the waste receptacle **104** is to be emptied, the user can unlock the caster assemblies **122** and direct the waste disposal assembly **100** again using the upper handle portions **116**.

[0043] Once the waste disposal assembly **100** has been properly positioned and is in the operation disposition **306**, a user can dispose of waste contents by manipulating hands-free actuation assembly **106** by stepping on foot pedal **190** as shown in FIG. 18. Due to the arrangement of hands-free actuation assembly **106** and more specifically, the orientation of linkage assembly **182** and pressurized cylinder **200**, an initial resistance must be overcome before hands free actuation assembly **106** accomplishes opening of the waste receptacle **104**. This initial resistance inhibits accidental opening of the waste receptacle **104** so as to reduce the potential for unintended opening and possible accidental exposure to waste contents within the waste receptacle **104**. As the user continues to apply downward pressure to the foot pedal **190**,

mounting arms **192a**, **192b** are caused to rotate in a forward direction such that first link member **194** is also directed forward. First link member **194** directs second link member **196** in a forward direction which simultaneously directs third link member **198** to rotate in a rearward direction about the pivot point **204**. As third link member **198** rotates rearward, cylinder arm **206** is directed rearward into the pressurized cylinder **200** while at the same time, slider assembly **210** is caused to slide rearward along the slide arm **218**. As the slider assembly **210** moves rearward, capture assembly **212** is directed rearward such that forward capture arm **242** contacts the upwardly projecting biasing member **176** and pushes the upper slidable member **164** in a rearward direction. As the upper slidable member **164** is directed rearward, disposal aperture **168** is uncovered and exposed allowing the user to drop the waste contents into the waste receptacle **104**.

[0044] Once the waste contents have been dropped into the waste receptacle **104**, the user can release the foot pedal **190** wherein the pressurized cylinder **200** immediately directs the cylinder arm **206** in a forward direction causing the third link member to rotate around the pivot point **204** in a forward direction such that the slider assembly **210**, capture assembly **212** and consequently the upper slidable member **164** are directed forward to cover the disposal aperture **168**. At the same time, second link member **196** and first link member **194** are directed in a rearward direction such that mounting arms **192a**, **192b** rotate in a rearward direction thus allowing the foot pedal **190** to move upwards where it is in position for subsequent biasing by the user.

[0045] As discussed previously, waste receptacle **104** can be removed from the unitary frame **100** by directing the capture assembly **212** to non-capture disposition **300** and quick release member **129** to the non-retaining disposition **302** and lifting the waste receptacle **104** from the unitary frame **102**. This is generally accomplished when the waste receptacle **104** is filled with waste content and is to be disposed of in an incinerator or container that can be hauled away for destruction and/or disposal. Generally, upper slidable member **164** can be directed rearward over bottom stationary member **162** to uncover disposal aperture **168** or alternatively, both the bottom stationary member **162** and upper slidable member **164** can be slidably removed through the track opening **150** in the access track **148**.

[0046] In some instances during installation of waste receptacle **104** within the unitary frame **102**, upper slidable member **164** may be positioned such that the upwardly projecting biasing member **176** is in a rearward location with respect to the capture assembly **212**. In this case, capture region **250** may not be in alignment with the upwardly projecting biasing member **176** such that the capture assembly **212** does not successfully engage the upper slidable member **164** as illustrated in FIG. **19**. To reset the engagement of capture assembly **212** and the upper slidable member **164**, the user need only step upon foot pedal **190** as previously described wherein capture assembly **212** is directed rearward over the upper slidable member **164** until the capture region **250** is positioned over the upwardly projecting biasing member **176** and consequently the capture assembly **212** falls over and engages the upper slidable member **164**.

[0047] As will be understood of one in skill in the art, waste disposal assembly **100** as described above provides for ease of movement while allowing for easy disposal of waste contents as well as limiting opening and possible exposure to said waste contents only when purposely directed by a user. While

the invention has been described in connection with what is presently considered to be the most practical and preferred embodiment, it will be apparent to those of ordinary skill in the art that the invention is not to be limited to the disclosed embodiment, that many modifications and equivalent arrangements may be made thereof within the scope of the invention, which scope is to be accorded the broadest interpretation of the appended claims so as to encompass all equivalent structures and products.

What is claimed:

1. A hands-free medical waste disposal assembly comprising:

a waste receptacle including a lid assembly portion and a container portion;

a frame adapted to receive the waste receptacle; and

a positive closure system attached to the unitary frame, the positive closure system engaging the lid assembly portion to bias the lid assembly portion towards a closed disposition from an open disposition, wherein the positive closure system include a retention assembly having a capture portion for slidably capturing the lid assembly portion.

2. The hands-free medical waste disposal assembly of claim 1, wherein the container portion further comprises an access track adapted to slidably receive the lid assembly portion.

3. The hands-free medical waste disposal assembly of claim 2, wherein the lid assembly portion further comprises:

a bottom stationary member having a disposal aperture and an upwardly projecting rear retention member; and

an upper slidable member including an upwardly projecting front biasing member wherein the bottom stationary member and upper slidable member are operably mounted within the access track.

4. The hands-free medical waste disposal assembly of claim 3, wherein the capture portion slidably captures the upwardly projecting front biasing member so as to selectively cover or expose the disposal aperture of the bottom stationary member.

5. The hands-free medical waste disposal assembly of claim 1 wherein the frame is fabricated from a seamless frame member arranged to define a pair of side members for receiving the waste receptacle.

6. The hands-free medical waste disposal assembly of claim 5, wherein the seamless frame member is formed from a sanitizable material selected from the group consisting of: painted carbon steel, aluminum, stainless steel, and polymeric materials.

7. The hands-free medical waste disposal assembly of claim 5, wherein each side member includes an upper mounting portion for engaging a flanged upper surface on the waste receptacle.

8. The hands-free medical waste disposal assembly of claim 5, wherein the seamless frame member defines an upper handle portion on each side member.

9. The hands-free medical waste disposal assembly of claim 1 wherein the positive closure system further includes an interface assembly, a linkage assembly and a biasing assembly operably connected to the retention assembly, wherein force applied to the interface assembly is translated to the retention assembly through the linkage assembly and the biasing assembly.



**10.** The hands-free medical waste disposal assembly of claim **9**, wherein the interface assembly includes a foot pedal rotatably attached to the mounting frame.

**11.** The hands-free medical waste disposal assembly of claim **9**, wherein the linkage assembly includes a pressurized cylinder to bias the retention assembly to a normally closed disposition.

**12.** The hands-free medical waste disposal assembly of claim **11**, wherein the pressurized cylinder provides an initial resistance force applied to the interface assembly to prevent non-intentional biasing of the retention assembly.

**13.** A method for disposing of medical waste comprising:  
providing a waste receptacle mounted in a unitary frame, the waste receptacle including a lid assembly portion and a container portion;  
attaching a positive closure system to the unitary frame, the positive closure system engaging the lid assembly portion; and

applying a hands-free force to the positive closure system such that the lid assembly portion is slidably directed from a closed disposition to an open disposition.

**14.** The method of claim **13**, further comprising:  
removing the hands-free force from the positive closure system such that the lid assembly portion returns to the closed disposition.

**15.** The method of claim **13**, further comprising:  
forming an access track on the container portion adapted to slidably receive the lid assembly portion.

**16.** The method of claim **13**, wherein applying the hands-free force comprises stepping on a biasing assembly.

**17.** The method of claim **13**, wherein applying the hands-free force comprises overcoming an initial resistance force in the positive closure system.

\* \* \* \* \*