An extensible and retractable urine deflecting apparatus (10) for use in combination with a toilet and toilet bowl comprising three distinct segments all continguously connected. Preferably the first segment consists of a pair of flush mounted attach, connect and support structures (12), but may be limited to one. Preferably the second segment consists of a pair of extensible and retractable mechanical arms (14), but may be limited to one. The third segment consists of a urine deflecting device (16) or any of various methods including but not limited to absorbent paper (50), cascading water (62), stream of air (78), or lightweight mini urinal device (68). The extensible and retractable urine deflecting apparatus (10) readily converts any typical toilet into a fully functional urinal so that a user from a non sitting position may reliably deliver and deposit a stream of urine by first deflecting and then redirecting the urine into the intended inside portion of the toilet bowl in a sanitary fashion.
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EXTENSIBLE AND RETRACTABLE URINE DEFLECTING APPARATUS
FOR USE WITH A TOILET

BACKGROUND OF THE INVENTION

1. Field of the Invention:

The present invention relates generally to the field of fixtures, devices, and machines in a restroom or a bathroom or any place where a toilet is disposed (hereinafter collectively referred to as a "bathroom") and sanitary waste disposal. More specifically the present invention relates to an extensible and retractable urinal apparatus, which is disposed in proximity to a toilet of any design. It is attached either to the toilet or to a wall, floor, ceiling or any other convenient surface near the toilet (hereinafter referred to as the "Attach, Connect, and Support Structure" 1st segment.)

The primary purpose of the apparatus is to deflect a stream of urine from a user of the apparatus in a nonsitting position before it can miss the intended inside portion of the toilet bowl and soil the toilet seat or bathroom, and reliably deliver the urine into the bowl. The apparatus includes extension and retraction means secured to the "Attach, connect, and Support Structure". In the preferred embodiment, the apparatus includes two extensible mechanical arms, but any structure (including one such extensible mechanical arm) permitting translational
movement may serve as the extension and retraction means. Therefore continuing reference in this specification to extensible arms is not to be construed as a limitation on the structure of said means. A urine deflecting means is secured to the forward ends of the extensible mechanical arms which deflects and delivers into the toilet bowl the stream of urine. The urine deflecting means (3rd segment) may take several different forms. These include, but are not limited to, the following:

(1) A paper dispensing paper clamping, and paper cutting device that positions perpendicularly a portion of paper coming from a spool by immersing the leading edge of the paper in the toilet bowl water and by sandwiching another portion of the paper between a pair of friction engagement pads. The paper dispensing, paper clamping, paper cutting device is placed above the toilet bowl during use providing the user with a precise target of superior angle (Absorbent Paper) for deflecting and guiding the stream of urine into the toilet bowl.

(2) A paper supporting device that positions perpendicularly a sheet(s) of paper firmly, by utilizing any of various fastening methods which include but are not limited to the following: (a) gripping the sheet of paper from the supporting device, (b) pinning the sheet of paper to the supporting device, (c) hanging the sheet of paper on the
supporting device, (d) adhering the sheet of paper to the supporting device, (e) placing the sheet of paper between a magnet(s) and the supporting device. The paper supporting device is placed above the toilet bowl during use providing the user with a precise target of superior angle (Sheet of Absorbent Paper) for deflecting and guiding the stream of urine into the toilet bowl.

(3) A water cascading faucet device with integral components having an elongated sheetflow spout for substantially widening the flow of cascading water positioned perpendicularly. The water is obtained from a water supply line using customary plumbing components such as valves (single or double), flexible inlet tube, handle, aerator, flow restrictor and any other component necessary. The water cascading faucet device is positioned above the toilet bowl during use providing the user with a precise target of superior angle (Cascading Water) for deflecting and guiding the stream of urine into the toilet bowl.

(4) A mini type urinal receptacle device positioned perpendicularly of small scale and substantially lightweight, having and attached to integral plumbing components, such as a water supply line, valve(s) (single or double), flexible inlet tube, spud, flush valve, flush spreader, non drip tailpiece and any other component necessary. The urinal type receptacle device is positioned above the toilet bowl during use, providing
the user with a precise target of superior angle (Mini Type Urinal) for deflecting and guiding the stream of urine into the toilet bowl.

(5) A stream of air generating device with integral components, having an elongated air flow nozzle with vanes, for substantially widening the perpendicularly discharged air stream. The stream of air being discharged through the elongated air flow nozzle is first delivered through a flexible hose connected to customary hand dryer components such as a universal type motor (brushless, capacitor initiated), centrifuge type fan, push button activation, reflective infrared sensor, electrical grounding, dedicated electrical circuit, GFI circuit protection, corrosion resistant parts, electrical wiring conduit, electrostatic proximity sensor, surface mounting method or any other component necessary.

Note: May be battery operated. The stream of air discharging orifice (elongated nozzle) is positioned above the toilet bowl during use providing the user with a precise target of superior angle (Stream of Air) for deflecting and guiding the stream of urine into the toilet bowl. And any other device to accomplish the stated objective.

1. Description of the Prior Art:

There have long been porcelain urinals in men's public restrooms so that the user need not be seated on a conventional
toilet. The urinals, which receive and dispose of a stream of urine, are concave and vertically elongated to be an easy target for the urine stream. A problem with these urinals is that they are too space consuming and expensive to be suited for typical home use. Yet the need for the convenience and sanitary benefit of a urinal in the home remains.

It is thus an object of the present invention to provide a urinal apparatus, which can be secured in close proximity to an existing toilet to reliably deflect urine into the toilet bowl.

It is another object of the present invention to provide such an apparatus which is readily retractable to a highly compact position out of the way of a seated toilet user and readily extendable to its operative position over the toilet bowl when placed in close proximity to the user and thus becoming an easy target, and to deliver the intercepted or deflected urine downwardly into the toilet bowl reliably.

It is still another object of the present invention to provide such an apparatus, which is highly sanitary, very convenient to use, and which does not interfere with seated use of the toilet.

It is also an object of the present invention to provide such an apparatus which can be manufactured for a fraction of the cost of a conventional restroom urinal and which is easily installed with minimal skill.
It is apparent that conventional toilets are designed to effectively receive a human being's excreted impurities from a sitting position. It is also apparent that conventional urinals are designed to effectively receive excreted urine typically from a human being of the male gender from a standing position. However, conventional toilets are not effectively designed for receiving urine delivered by a human being from a standing position.

It is thus an object of the present invention to provide an Adaptable Commercial/Residential Urine Deflecting Apparatus, which can be secured in close proximity to an existing toilet for the purpose of deflecting a stream of urine into the toilet bowl.

It is another object of the present invention to provide a Urine Deflecting Apparatus of such range that it can become highly compact and non obstructive to a seated user or it can become extensible and usable as a urine deflecting device by a standing user for depositing urine into a toilet bowl.
Other advantages of the present invention Extensible and Retractable Commercial/Residential Urine Deflecting Apparatus are:

Toilet remains unaltered. Any existing toilet bowl and drain opening can be utilized to promptly and effectively create a fully functional urinal.

Most existing conventional toilets equipped with water supply, water tank, toilet bowl, integral flush valve, and drain can be converted promptly and effectively into a fully functioning urinal. The urinal mode can also be transformed back to toilet mode promptly, easily, and effectively.

The ability of this novel invention to do that can enable any homeowner to install and have a urinal device/apparatus in any or every bathroom in his or her home, simply, compactly, and inexpensively.

Many commercial buildings frequently visited by the public as well as commercial airlines, trains, buses, recreational vehicles, hotels, hospitals, restaurants, stadiums, arenas, learning institutions, etc. do not have conventional urinals in their bathrooms. They could all benefit by installing a urinal device/apparatus without the expense and cumbersome task of demolishing floors and walls, hiring master plumbers, acquiring special permits, refurbishing esthetics, disposing of debris, etc.
Without a doubt the aforementioned urinal device/apparatus properly positioned provides a closer target at a superior angle therefore maintaining the area around any frequently used conventional toilet more sanitary than if you attempt to use a conventional toilet as you would a conventional urinal.

Other objects and advantages will be apparent to those skilled in the art upon reference to the following descriptions and drawings.

**SUMMARY OF THE INVENTION**

The present invention accomplishes the above-stated objectives, as well as others, as may be determined by a fair reading and interpretation of the entire specification. A retractable urinal apparatus is provided which is disposed in proximity to a toilet of any design. It is secured in such proximity using an attach, connect, and support structure (1st segment).

In the preferred embodiment, the apparatus includes a pair of longitudinally extensible mechanical arms (2nd segment) secured at their rearward ends to the attach, connect, and support structure (1st segment) or both segments (1&2) can be fabricated of unitary single member construction. A urine deflecting means (3rd segment) is secured to the forward ends of the mechanical arms (2nd segment) which deflects and delivers
urine into the toilet bowl. The extensible mechanical arms (2nd segment) may operate by any position translating means, including but not limited to linear telescoping, hinged motion, pivot, linear accordion motion, swivel, or combination movements.

In the preferred embodiment the attach, connect, and support structure (1st segment) preferably is mechanically fasted over the toilet tank (in the case of a conventional toilet).

In the preferred embodiment, the extensible mechanical arms (2nd segment) preferably are positioned over the toilet tank during non use and extend over the toilet bowl during use (in the case of a conventional toilet), and the urine deflecting means (3rd segment) preferably includes absorbent paper dispensed from a device such as a spool wherein the leading edge of the paper is immersed in toilet bowl water for the purpose of maintaining the perpendicularly positioned paper taut. It further preferably includes a spool mounting mechanism removably connected to the attach, connect, and support structure (1st segment), a spool of paper rotatably mounted onto the spool mounting mechanism, and a paper clamp, paper cut, paper guide mechanism (3rd segment) for guiding a portion of the paper extended from the spool downwardly into the toilet bowl. The urine deflecting apparatus preferably includes an attach connect, and support structure (1st segment), preferably includes
telescoping extensible mechanical arms with ball bearing mechanism (2nd segment), preferably includes pillars or struts connector member(s) (3rd segment) extending in any of various directions including upwardly from each of the extensible mechanical arms (2nd segment) and a paper mounting and bridging member being optionally removable and secured to the pillars or struts connector member(s) (3rd segment), a paper mounting spindle rotatably fitted and preferably supported by the attach, connect, and support structure (1st segment) and braced substantially between the attach, connect, and support structure, a spool of absorbent paper removably mounted over and around the spindle to unravel over the top or under the underside of the spool, a paper engaging structure (3rd segment) bridging and connecting the forward ends of the extensible mechanical arms (2nd segment) optionally including upwardly extending connector brackets (3rd segment), and a pair of opposing and loosely meeting friction or traction producing engagement plates (3rd segment) fastened to the connector brackets (3rd segment) and optionally a bracing guide member attached adjacent to the paper engaging structure (3rd segment) and the forward ends of the extensible arms (2nd segment) for the purpose of producing simultaneous linear motion between both extensible mechanical arms (2nd segment). Paper from the spool is unrolled forwardly and fitted between the friction engagement plates,
which press against the paper to create traction or friction between the plates and the paper. This prevents unwanted and inadvertent dispensing of the paper. A segment of the paper is thereby permitted to angle downwardly, ride against the lower friction engagement plate and enter the toilet bowl and contact water in the toilet bowl.

The Attach, Connect, and Support Structure (1st Segment) may take several different forms for the purpose of supporting weight and for securing (1st Segment), and also for the purpose of connecting and supporting Extensible Mechanical Arms (2nd Segment) to (1st Segment).

These include, but are not limited to, the following:

1. Surface mounted hanger(s) with or without plate or flanges for anchoring or fastening.

2. Surface mounted bracket(s) with or without plate or flanges for anchoring or fastening.

3. Surface mounted tubing(s) with or without plate or flanges for anchoring or fastening.

4. Surface mounted housing(s) with or without plate or flanges for anchoring or fastening.

5. Surface mounted standards with or without plate or flanges for anchoring of fastening.

6. Surface mounted flanged channel(s) with or without plate or flanges for anchoring or fastening.
(7) Surface mounted flanged track(s) with or without plate of flanges for anchoring or fastening.

(8) Surface mounted combination telescoping hanger(s) or housing(s) with or without plate or flanges for anchoring or fastening.

(9) Surface mounted combination hinged hanger(s) or housing(s) with or without plate or flanges for anchoring or fastening.

(10) Surface mounted combination swivel hanger(s) or housing(s) with or without plate or flanges for anchoring or fastening. And any other device to accomplish the stated objective.

The Extensible and Retractable Mechanical Arm(s) (2nd Segment) may take several different forms for the purpose of supporting weight, and for connecting to (1st Segment Attach, Connect and Support Structure) and (3rd Segment, Urine Deflecting Device) and for positioning (3rd Segment, Urine Deflective Device) above a toilet bowl during use and for reversing the position of (3rd Segment, Urine Deflecting Device) during non-use. These include but are not limited to the following:

(1) Ball bearing slide, mechanical arm.

(2) Ball bearing track, mechanical arm.

(3) Roller slide, mechanical arm.
(4) Roller track, mechanical arm.

(5) Combination hinge, and linear motion slide, mechanical arm.

(6) Combination hinge, and linear motion track, mechanical arm.

(7) Combination swivel, and linear motion slide, mechanical arm.

(8) Combination swivel, and linear motion track, mechanical arm.

(9) Combination pivot, and linear motion slide, mechanical arm.

(10) Combination pivot, and linear motion track, mechanical arm.

(11) Combination turntable, and linear motion slide, mechanical arm.

(12) Combination turntable and linear motion track, mechanical arm.

(13) Combination (1st Segment, attach, connect and support structure) and variable height slide mechanical arm.

(14) Combination (1st Segment, attach, connect, and support structure) and variable height track mechanical arm.

(15) Combination hinge and mechanical arm.

(16) Combination (1st Segment, attach, connect, and support structure) and hinge mechanical arm.
(17) Linear motion roller trolley and track mechanical arm.

(18) Linear motion roller hanger and track mechanical arm.

(19) Pivoting cable carrier mechanical arm.

(20) Pivoting mechanical arm.

(21) Swivel mechanical arm.

(22) Adjustable pivot and spring mechanical arm.

(23) Telescoping mechanical arm(s) with stop mechanisms made of synthetic materials with lubricity such as Delrin/Acetal, Teflon/Tfe, Zytel/Nylon.

(24) Variable height extensible and retractable urine deflecting apparatus.

(25) Variable height track system.

(26) Variable height (1st Segment attach, connect, and support structure)

(27) Variable height (2nd Segment extensible and retractable mechanical arms)

(28) Variable height (3rd segment urine deflecting means)

(29) Combination variable height track, and (1st segment, attach, connect, and support structure)

(30) Combination variable height (1st Segment attach, connect, and support structure) and (2nd segment extensible and retractable mechanical arm)
The Mechanical Arms (2nd Segment) can be made extensible and retractable by utilizing components, including but not limited to the following:

1. telescoping devices
2. slides
3. tracks
4. channels
5. trolley assemblies
6. roller hangers
7. locks and stops
8. hinges
9. scissor hinges (accordion)
10. housing(s)
11. support structures
12. springs
13. tubing
14. pulleys
15. cables
16. levers

The Mechanical Arms (2nd Segment) can be made extensible and retractable by utilizing various mechanisms, including but not limited to the following:

1. ball bearings
2. roller bearings
(3) synthetic bearings (Delrin, Teflon, Nylon)

(4) wheels

(5) rollers

(6) springs

(7) high lubricity materials

(8) pulley and cable

(9) levers

The Mechanical Arms (2nd Segment) can be made extensible and retractable by utilizing various motions including but not limited to the following:

(1) linear

(2) hinge

(3) swivel

(4) pivot

(5) spring

(6) accordion

(7) rotational

(8) gliding

(9) rolling

The Urine Deflecting Device (3rd Segment) may take several different forms for the purpose of conveniently and sanitarily intercepting, deflecting, and depositing urine delivered by a user in a non standing position into a toilet bowl. These
include but are not limited to the following: SEE BACKGROUND OF THE INVENTION

(1) Paper Dispensing, Paper Clamping, and Paper Cutting Device
(2) Paper Supporting Device
(3) Water Cascading Faucet Device
(4) Mini Type Urinal Receptacle Device
(5) Stream of Air Generating Device
BRIEF DESCRIPTION OF THE DRAWINGS

Various other objects, advantages, and features of the invention will become apparent to those skilled in the art from the following discussion taken in conjunction with the following drawings, in which:

Figures 1-3 are perspective views (having subtle differences) of the first preferred embodiment of the invention, shown mounted over a conventional toilet.

Figure 4 is a close-up view of the apparatus of Figure 3.

Figure 5 is a close-up view of the apparatus of Figure 3 having subtle differences with Figures 3-4.

Figure 6 is a close-up view of the device for supporting and positioning a urine deflecting means (3rd segment) or a spool of absorbent paper (3rd segment).

Figure 7 is a perspective view of the second preferred embodiment of the invention, shown mounted over a conventional toilet.

Figure 8 is a perspective view of the third preferred embodiment of the invention, shown mounted over a conventional toilet.

Figure 9 is a perspective view of the fourth preferred embodiment of the invention, shown mounted over a conventional toilet.
Figure 10 is a perspective view of the fifth preferred embodiment of the invention, shown mounted over a conventional toilet.

**DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS**

Detailed embodiments of the present invention are disclosed herein; however, it is to be understood that the disclosed embodiments are merely exemplary of the invention which may be embodied in various forms, placed in various locations and used with different types of toilets. Therefore, specific structural and functional details disclosed herein are not to be interpreted as limiting, but merely as a basis for the claims and as a representative basis for teaching one skilled in the art to variously employ the present invention in virtually any appropriately detailed structure and using a variety of materials and components.

Reference is now made to the drawings, wherein like characteristics and features of the present invention shown in the various Figures are designated by the same reference numerals.
FIRST PREFERRED EMBODIMENT

Referring to Figures 1-5, an Extensible and Retractable Urine Deflecting Apparatus 10 comprising an Attach, Connect, and Support Structure(s) 12 Extensible and Retractable Mechanical Arm(s) 14 and a Urine Deflecting Device 16. A variable height track system 17 or a combination variable height track system with attach, connect, and support structure 19 can be incorporated as part of the Urine Deflecting Apparatus 10. The attach, connect, and support structure(s) 12 comprises a plate or flange 18, or other portion of substantially rigid surface material suitable for securely anchoring or fastening to a convenient surface including but not limited to a wall, floor, ceiling, or toilet itself. Additionally the attach, connect, and support structure 12 has a protruding unit 20 for connecting and adjoining, and for supporting extensible and retractable mechanical arms 14 and any preferred (3rd segment), or member, and/or components, firmly attached to the forward ends of extensible and retractable mechanical arms 14. The extensible and retractable mechanical arm(s) 14 comprise preferably four linear motion telescoping sections, telescoping channels, or telescoping members 22 slidably connected, preferably utilizing ball bearing mechanism (not shown), roller bearing mechanism (not shown), or synthetic bearings (not shown) such as teflon or
delrin, and having a lock or stopper mechanism (not shown) including but not limited to a flange, a bumper, or cushion. The extensible and retractable mechanical arm(s) 14 contiguously connect at its rearward end(s) identified as rear section telescoping member(s) 24a to the attach, connect, and support structure 12 and the extensible and retractable mechanical arm(s) 14 contiguously connect at its forward end(s) identified as forward section telescoping member 24d to the urine deflecting device 26 (3rd Segment). The urine deflecting device 26 comprises a structural bridging or bracing member 28 contiguously fastened to a portion of the forward ends of both extensible and retractable mechanical arms 14 identified as forward section telescoping member(s) 24d. A pair of upwardly extending pillars or struts 30 contiguously connected to a portion of the forward ends of both extensible and retractable mechanical arms 14 identified as forward section telescoping members 24d and also contiguously connected to both ends of the structural bracing member 28. A pair of traction or friction engagement plates or friction engagement pads 32 or paper weight engagement pads/gripping pads 31 both contiguously connected at both of its ends to an upper portion of both upwardly extending struts 30 or contiguously connected to at least one extensible and retractable mechanical arm 14 or smooth surfaced tube(s) 34. The top friction engagement pad 32a may remain stationary or
vice versa. The bottom friction engagement pad 32b is movable and loosely connected underneath the top friction engagement pad 32a or vice versa. A pair of upright extending smooth surfaced cylinder shaped pins, smooth surfaced rods, or smooth surfaced tubes 34 are contiguously connected to an upper portion of both upwardly extending struts 30 and may serve to both loosely connect and to facilitate upward motion of the bottom friction engagement pad 32b enabling it to press up against the top friction engagement pad 32a when interconnecting clamping arm 36 is pushed. A manual push and pull straight line action clamp 38 with clamping arm 36 having an upright positioned sliding bar, sliding plunger, or sliding bolt 40 with centering attachment 42. The base 44 of the straight line action clamp 38 adjoins and is fastened to at least one upwardly extending strut 30. The end portion of the upright positioned component identified as sliding bolt 40 with centering attachment 42 can be placed in proximity or contiguously connected to the bottom friction engagement pad 32b. A removable tube or shaft 46 connected to indentations or niches 48 of both attach, connect, and support structures 12 for inserting through and for supporting a rotatable "Spool of Absorbent Paper" 50. The leading edge of the absorbent paper 50 is inserted and passed through the friction engagement pads 32. A substantial portion of the absorbent paper 50 is lowered in a perpendicular position and the leading edge
of the absorbent paper 50 is immersed into the toilet bowl water. The interconnecting friction engagement pads 32 are in lock position. A serrated blade 52 contiguously attached to the top friction engagement pad for cutting and removing used portion of absorbent paper 50.

Referring to Figure 6. Also referring to Figures 1-2 when Component Spool of Absorbent Paper 50 from (3rd Segment) is incorporated.

The components of (3rd Segment) may be replaced, and the alternate components may be arranged in the following order:

A pair of friction or gripping engagement pads 32 or paper weight engagement pads/gripping pads 31 are contiguously connected from both ends to a pair of upright extending smooth surfaced tubes 34. The pair of upright extending smooth surfaced tubes are separately and contiguously connected to the ends of at least one extensible and retractable mechanical arms 14 identified as forward section telescoping members 24d. Optionally a single or a pair of clamps 54 are separately and contiguously connected from their base (not shown) to both ends of at least one extensible and retractable mechanical arms 14 identified as forward section telescoping members 24d and optionally a single or both clamps are contiguously connected at their gripping ends to both friction or gripping engagement pads 32 or paper weight engagement pads/gripping pads 31. A variable
height track system 17 or a combination variable height track
system with attach, connect, and support structure 19 can be
incorporated as part of the urine Deflecting Apparatus 10.

Second Preferred Embodiment

Referring to Figures 1-5

The embodiment of Extensible and Retractable Urine
Deflecting Apparatus 10 is comprised of "three distinct
segments" namely (Attach, Connect, and Support Structure 1st
Segment) 12 (Extensible and Retractable Mechanical Arms 2nd
segment) 14 and (Spool of Absorbent Paper 50 interacting with
paper dispensing, paper clamping, and paper cutting mechanism
all converging to produce Urine Deflecting Device 16 or 3rd
Segment).

Referring to Figure 7

Another embodiment of apparatus 10 may be produced by
omitting the spool of absorbent paper 50 and interacting
components. Attached to forward telescoping members 24d is an
alternative (3rd Segment Paper Supporting Device) 56 that
positions perpendicularly a sheet(s) of paper 58 firmly, by
utilizing any of various fastening methods which include but are
not limited to the following: (a) gripping the sheet of paper
from the supporting device, (b) pinning 60 the sheet of paper to the supporting device, (c) hanging the sheet of paper on the supporting device, (d) adhering the sheet of paper to the supporting device, (e) placing the sheet of paper between a magnet(s) and the supporting device. The paper supporting device is placed above the toilet bowl during use providing the user with a precise target of superior angle (Sheet of Absorbent Paper) for deflecting and guiding the stream of urine into the toilet bowl.

Third Preferred Embodiment

Referring to Figures 1-5

The embodiment of Extensible and Retractable Urine Deflecting Apparatus 10 is comprised of "three distinct segments" namely (Attach, Connect, and Support Structure 1st Segment) 12 (Extensible and Retractable Mechanical Arms 2nd Segment) 14 and (Spool of Absorbent Paper 50 interacting with paper dispensing, paper clamping, and paper cutting mechanism all converging to produce Urine Deflecting Device 16 or 3rd Segment).

Referring to Figure 8

Another embodiment of apparatus 10 may be produced by omitting the spool of absorbent paper 50 and interacting
components. Attached to forward telescoping members 24d is an alternative (3rd Segment Water Cascading Faucet Device) 62 with integral components having an elongated sheetflow spout 64 for substantially widening the flow of cascading water positioned perpendicularly. The water is obtained from a water supply line 72 using customary plumbing components such as valves 74 (single or double), flexible inlet tube 66, handle, aerator, flow restrictor and any other component necessary. The water cascading faucet device is positioned above the toilet bowl during use providing the user with a precise target of superior angle (Cascading Water) for deflecting and guiding the stream of urine into the toilet bowl.

Fourth Preferred Embodiment

Referring to Figures 1-5

The embodiment of Extensible and Retractable Urine Deflecting Apparatus 10 is comprised of "three distinct segments" namely (Attach, Connect, and Support Structure 1st Segment) 12 (Extensible and Retractable Mechanical Arms 2nd Segment) 14 and (Spool of Absorbent Paper 50 interacting with paper dispensing, paper clamping, and paper cutting mechanism all converging to produce Urine Deflecting Device 16 or 3rd Segment.)

Referring to Figure 10
Another embodiment of apparatus 10 may be produced by omitting the spool of absorbent paper 50 and interacting components. Attached to forward telescoping members 24d is an alternative (3rd Segment Stream Of Air Generating Device 76 with integral components, having an elongated air flow nozzle 78 with vanes, for substantially widening the perpendicularly discharged air stream. The stream of air being discharged through the elongated air flow nozzle is first delivered through a flexible hose 80 connected to customary hand dryer components such as a universal type motor (brushless, capacitor initiated), centrifuge type fan, push button activation, reflective infrared sensor, electrical grounding, dedicated electrical circuit 82, GFI circuit protection, cord 84, corrosion resistant parts, electrical wiring conduit, electrostatic proximity sensor, surface mounting method or any other component necessary. Note: May be battery operated. The stream of air discharging orifice (elongated nozzle) is positioned above the toilet bowl during use providing the user with a precise target of superior angle (Stream Of Air) for deflecting and guiding the stream of urine into the toilet bowl. And any other device to accomplish the stated objective.

While the invention has been described, disclosed, illustrated and shown in various terms or certain embodiments or modifications which it has assumed in practice, the scope of the
invention is not intended to be, nor should it be deemed to be, limited thereby and such other modifications or embodiments as may be suggested by the teachings herein are particularly reserved especially as they fall within the breadth and scope of the claims here appended.

Fifth Preferred Embodiment

Referring to Figures 1-5

The embodiment of Extensible and Retractable Urine Deflecting Apparatus 10 is comprised of "three distinct segments" namely (Attach, Connect, and Support Structure 1st Segment) 12 (Extensible and Retractable Mechanical Arms 2nd Segment) 14 and (Spool of Absorbent Paper 50 interacting with paper dispensing, paper clamping, and paper cutting mechanism all converging to produce Urine Deflecting Device 16 or 3rd Segment).

Referring to Figure 9

Another embodiment of apparatus 10 may be produced by omitting the spool of absorbent paper 50 and interacting components. Attached to forward telescoping members 24d is an alternative (3rd Segment Mini Type Urinal Receptacle Device) 68 positioned perpendicularly, of small scale and substantially lightweight, having and attached to integral plumbing components, such as a water supply line 72 valve(s) 74 (single
or double), flexible inlet tube 66 spud, flush valve 70 flush spreader, non drip tailpiece and any other component necessary. The urinal type receptacle device is positioned above the toilet bowl during use providing the user with a precise target of superior angle (Mini Type Urinal) for deflecting and guiding the stream of urine into the toilet bowl.
In reference to all embodiments contemplated, the aforementioned 1st and 2nd segments may be designed and manufactured of single piece construction. Therefore, for purposes of describing the present invention, the 1st and 2nd segments equal 1 segment.

also

In reference to all embodiments contemplated, the aforementioned 1st and 2nd segments connected to structural components which provide stability and immediate support for 3rd Segment.

May be designed and manufactured of single piece construction, therefore for purposes of describing the present invention, the 1st segment, 2nd segment and said structural components equal 1 segment.
CLAIMS: 1 CLAIM:

1. A device for converting a toilet into a urinal comprising:
   a urine barrier means;
   means for supporting said urine barrier substantially perpendicular above a toilet
   bowl whereby urine contacting said barrier will be diverted to said toilet bowl.

2. A device as in Claim 1 including:
   means connected to said urine barrier support means to move said urine barrier
   from a first position over said toilet bowl to a second position away from said toilet
   bowl to permit access to said toilet bowl.

3. A device as in Claim 1, wherein:
   said urine barrier includes a disposable barrier medium.

4. A device as in Claim 1 wherein said urine barrier is a paper medium.

5. A device as in Claim 1 wherein said urine barrier is a fluid medium.

6. A device as in Claim 5 wherein said fluid is water.

7. A device as in Claim 1 wherein said urine barrier is an invisible medium.

8. A device as in Claim 7 wherein said invisible medium is propelled air.

9. A device as in Claim 1, wherein said urine barrier includes a receptacle barrier
   medium.

10. A device as in Claim 9, wherein said receptacle barrier medium is a light weight
    mini urinal device.
11. A device as in Claim 9, including:
said receptacle barrier being variable in height above said toilet bowl.

12. A device as in Claim 2, including
means to permit movement of said urine barrier vertically.

13. A device as in Claim 2, including:
means to permit movement of said urine barrier horizontally.

14. A method for converting a toilet into a urinal device comprising the steps of:
   a. providing a vertically oriented urine barrier in proximity to said toilet
   , and
   
   b. positioning said urine barrier above the toilet bowl wherein said toilet
and said urine barrier can be utilized as a urinal, and
   
   c. removing said urinal barrier from above said toilet bowl.

15. The method as in Claim 14, including the step of:
providing a medium such as paper as the urine barrier.

16. The method as in Claim 14 including the step of;
   
   d. providing a fluid medium as the urine barrier.

17. The method as in Claim 15, including the step of:
   
   d. dispensing the paper urine barrier from a supporting means suspended
above the toilet and allowing the used paper medium to be removed.

18. The method as in Claim 14, including the step of:
e. providing single paper sheets as the urine barrier means positioned individually above said toilet bowl when in use.

19. The method of utilizing a toilet and toilet bowl as a urinal involving a new use of a paper dispenser by providing a paper urine barrier suspended over said toilet bowl utilizing said toilet bowl as a urinal and utilizing the substantially vertically positioned paper as a urine barrier.

20. The method of utilizing a toilet and toilet bowl as a urinal involving a new use of absorbent paper providing a paper urine barrier mounted vertically over said toilet bowl converting said toilet bowl into a urinal utilizing the vertically mounted absorbent paper as a urine barrier.

21. The method as in Claim 14, including the steps of: providing a medium such as a sheetflow of water as the urine barrier.

22. The method as in Claim 14, including the step of: providing a medium such as forced air current as the urine barrier.

23. The method as in claim 14, including the step of: providing a medium such as a receptacle structure as the urine barrier.

24. A urine deflecting device for a toilet, comprising:

    a urine barrier means for receiving and conveying a urine stream directed at said urine barrier down along said urine barrier means for suspending said urine barrier member in a vertical orientation above a toilet bowl,
whereby a stream of urine directed at said elongated urine barrier member will be conveyed on said member and down said member into said bowl so as to avoid splashing or splattering of said urine.

25. The device of Claim 1 wherein said elongated urine barrier means is absorbent paper.

26. The device of Claim 2 wherein said absorbent paper is unwound from a spool.

27. The device of Claim 1 wherein said urine barrier means is flowing liquid.

28. The device of Claim 1 wherein said urine barrier means is mechanically propelled air.

29. The device of Claim 1 wherein said urine barrier means is a self cleaning receptacle structure.

30. The device of Claim 1 wherein said means for suspending said urine barrier in a vertical orientation is at least one mechanical arm.

31. The device of Claim 6 wherein said mechanical arm is extensible and retractable.

32. The device of Claim 7 wherein said mechanical arm is extensible and retractable by utilizing a ball bearing mechanism.

33. The device of Claim 7 wherein said mechanical arm is extensible and retractable by utilizing synthetic bearings having high lubricity, such as Delrin/Acetal, Teflon/TFE, Zytel/Nylon.
34. The device of Claim 7 wherein said mechanical arm is extensible and retractable by utilizing a roller bearing mechanism.

35. The device of Claim 1 wherein said means for suspending said urine barrier in a vertical orientation further comprises an attach, connect, and support structure means.

36. The device of Claim 12 wherein said attach, connect, and support structure further comprises a variable height member.

37. The device of Claim 3 further including a shaft for supporting and unraveling said spool of paper.

38. The device of Claim 1 further including a serrated blade for cutting paper.

39. The device of Claim 1 further including a pair of friction engagement pads or gripping pads connected to at least one extensible and retractable mechanical arm.

40. The device of Claim 12 wherein said attach, connect, and support structure further comprises flanges for flush mounting said urine deflecting device.

41. The device of Claim 12 wherein said attach, connect, and support structure further comprises niches for inserting spool supporting shaft.

42. A method for creating a urinal device by combining a toilet with an adaptable attachable extensible and retractable urine deflecting means comprising the steps of:

   a. positioning a segment of said adaptable attachable extensible and retractable urine deflecting means above the toilet bowl,

whereby said adaptable attachable extensible and retractable urine deflecting means combined with said toilet converge to produce a fully functioning urinal device.
43. A method for deflecting and depositing urine delivered by a human being into a toilet bowl comprising urinating onto paper in proximity to the toilet.

44. An attachable, extensible and retractable device for supporting and positioning a urine deflecting means above toilet bowl comprising:
   a. at least one attachable, extensible and retractable means for supporting a urine deflecting means disposed in proximity to a toilet, whereby said attachable, extensible and retractable device functions to support a urine deflecting means above said toilet bowl.

45. A mountable mechanical arm device for supporting and positioning a urine deflecting means above a toilet bowl comprising:
   a. at least one attach, connect, and support structure means disposed in proximity to a toilet, and
   b. at least one extensible and retractable mechanical arm means secured to said attach, connect, and support structure, whereby said mountable mechanical arm device functions to support a urine deflecting means above said toilet bowl.

46. An attachable extensible and retractable urine deflecting device for use in combination with a toilet, comprising:
   a. at least one attachable extensible and retractable mechanical arm means disposed in proximity to said toilet for positioning a portion of said urine deflecting device above the toilet bowl at a predetermined angle, and
b. urine deflecting means supported by said at least one attachable extensible and retractable mechanical arm means for reliably deflecting and depositing urine delivered by a human being into said toilet bowl.

Whereby said attachable extensible and retractable urine deflecting device in combination with said toilet readily creates and produces a fully functional urinal device for a human being.

47. An extensible and retractable urine deflecting device for use in combination with a toilet, comprising:

   a. at least one attachable and extensible and retractable mechanical arm disposed in proximity to said toilet for positioning a portion of said urine deflecting device above a toilet bowl at a predetermined angle, and

   b. a urine deflecting means supported by said attachable and extensible and retractable mechanical arm for reliably deflecting and depositing urine delivered by a human being into said toilet bowl.

whereby said extensible and retractable urine deflecting device in combination with said toilet readily creates and produces a fully functional urinal device for a human being.

48. A urine deflecting device for use in combination with a toilet comprising:

   a. at least one attachable support means disposed in proximity to said toilet for positioning a portion of said urine deflecting device above a toilet bowl at a predetermined angle, and
b. a urine deflecting means supported by said at least one attachable
support means for reliably deflecting and depositing urine delivered by a human being
into said toilet bowl.

whereby said urine deflecting device in combination with said toilet readily creates and
produces a fully functional urinal device for a human being.

49. An extensible and retractable urine deflecting device for use in combination
with a toilet comprising:

a. at least one attach, connect, and support structure disposed in proximity
to said toilet, and

b. at least one extensible and retractable mechanical arm secured to said
attach, connect, and support structure, and

c. a urine deflecting means secured to said at least one extensible and
retractable mechanical arm for deflecting and redirecting urine delivered by a user into
said toilet.

50. A retractable urinal device for use in combination with a toilet comprising:

an attachment structure means disposed in proximity to the toilet;

an extension and retraction means secured to said attachment structure; and

a urine deflecting means secured to the extension and retraction means for
deflecting urine of a user into the toilet.
51. The retractable urinal device of Claim 1, wherein the urine deflecting means further comprises a paper dispensing device such that the leading edge of the paper is immersed in toilet bowl water.

52. The retractable urinal device of Claim 2, wherein the paper dispensing device further comprises:

   a spool mounting mechanism connected to the attachment structure means;

   a spool of paper rotatably mounted onto the spool mounting mechanism; and

   a paper guide mechanism for guiding a segment of the paper extended from the spool downwardly into water in the toilet.

53. The retractable urinal device of Claim 2, wherein the paper dispensing device further comprises:

   a spool of absorbent paper removably mounted on the shaft;

   a paper engaging structure mounted on the extension and retraction means in proximity to the spool and including gripping pads;

   the paper engaging structure including a serrated blade supported by a friction engagement plate.

   a pair of opposing friction engagement plates mounted on the extension and retraction means.

   a niche on the surface of said attachment structure means for supporting said spool mounting mechanism;
such that paper from said spool is unrolled forwardly and fitted between said friction engagement plates, which presses against the paper to create friction between the plates and the paper, thereby preventing unwanted and inadvertent dispensing of said paper, and such that a segment of said paper is permitted to angle downwardly, hanging vertically into water in the toilet bowl.

54. The retractable urinal device of Claim 1, wherein the urine deflecting means further comprises a paper supporting device such that the paper is substantially vertically positioned above the toilet bowl.

55. The retractable urinal device of Claim 5, wherein the paper supporting device further comprises:

   a paper fastening mechanism means connected to the extension and retraction means;

   a sheet of paper individually mounted onto the paper fastening mechanism means; and

   a paper guide mechanism for guiding an individual sheet of paper extended from said paper supporting device substantially downwardly towards the water in the toilet bowl, in a substantially vertical position.

56. The retractable urinal device of Claim 5, wherein the paper supporting device further comprises:

   an independent paper dispenser mounted on said attachment structure;
such that individual sheets of paper are readily accessible for use and for mounting to said paper fastening mechanism means in a substantially perpendicular position above a toilet bowl.

57. The retractable urinal device of Claim 1, wherein the urine deflecting means further comprises:

a water cascading means selectively directing a sheet flow of water downwardly into the toilet to deflect and guide the urine stream into the toilet bowl.

58. The retractable urinal device of Claim 8, wherein the water cascading means is a water cascading faucet device.

59. The retractable urinal device of Claim 9, which further comprises a water cascading faucet device with a handle and water supply line and a substantially elongated and substantially vertically directed water discharge spout.

60. The retractable urinal device of Claim 1, wherein the urine deflecting means further comprises a water cascading faucet device mounted on the extension and retraction means having an elongated sheetflow spout positionable over the toilet such that, when the extension and retraction means is extended, said water cascading faucet device and sheetflow of water delivered from said faucet device intercepts the stream of urine and the urine is deflected and guided into the toilet bowl.

61. A method for deflecting and redirecting urine into a toilet comprising:

reaching for structure connected to urine deflecting means disposed in its retracted position in proximity to the toilet;
grasping the structure connected to the urine deflecting means;

moving the urine deflecting means using the structure connected to it on its extension and retraction means to its extended position;

urinating on the urine deflecting means;

moving the urine deflecting means using the structure connected to it on its extension and retraction means to its retracted position.
FIGURE 10

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SUBSTITUTE SHEET (RULE 26)
### INTERNATIONAL SEARCH REPORT

<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
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<tr>
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<td>US 2,577,028 A (MCMORROW) 04 December 1951, see entire document.</td>
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**Date of the actual completion of the international search:**
19 JULY 1999

**Date of mailing of the international search report:**
13 AUG 1999

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