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(54) **VERTICAL URINE SPRAYING FLUSHING TOILET DEVICE**

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CPC ***E03D 5/003*** (2013.01); ***E03D 5/01*** (2013.01)

(57) **ABSTRACT**

The front end of a pipe is placed in the air flow zone formed by a compressed air tube, and the back end of the pipe connects to the urine source. When the compressed air passes through the front end of the pipe, a spray is formed that can flush fecal waste. The embodiments in this application also describes an extension pipe that can connect between back end of the pipe and the urine source, which makes flushing of fecal waste easier in straight toilets. This application's embodiments also describes a nozzle for the pipe and a nozzle for the compressed air tube.

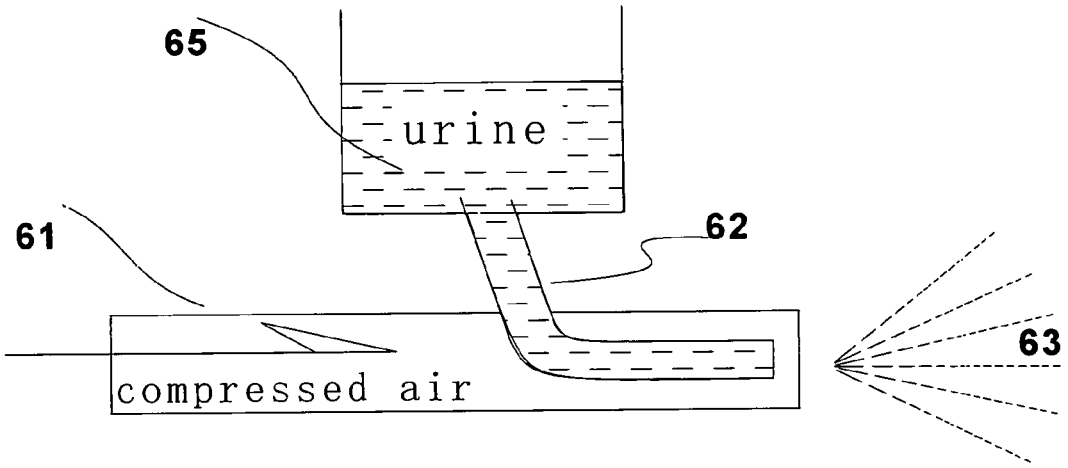

FIG. 1

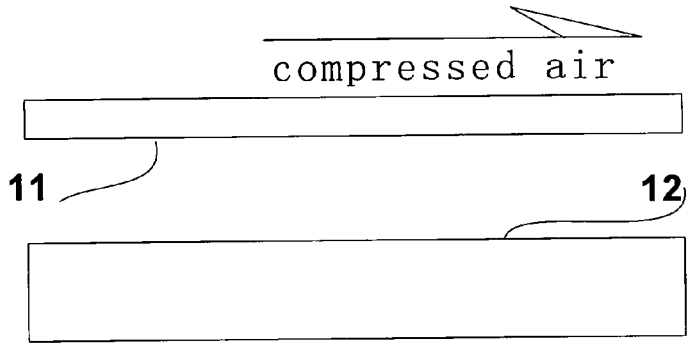

FIG. 2

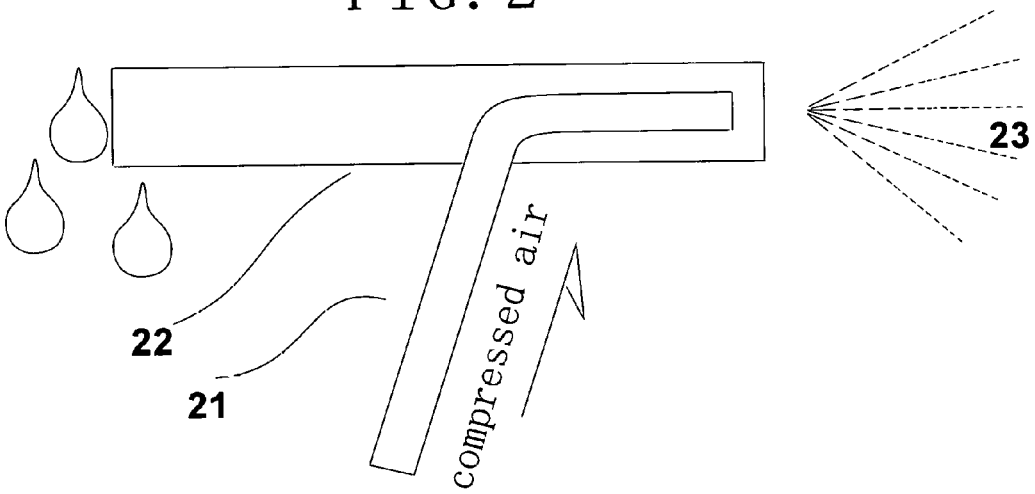

FIG. 3

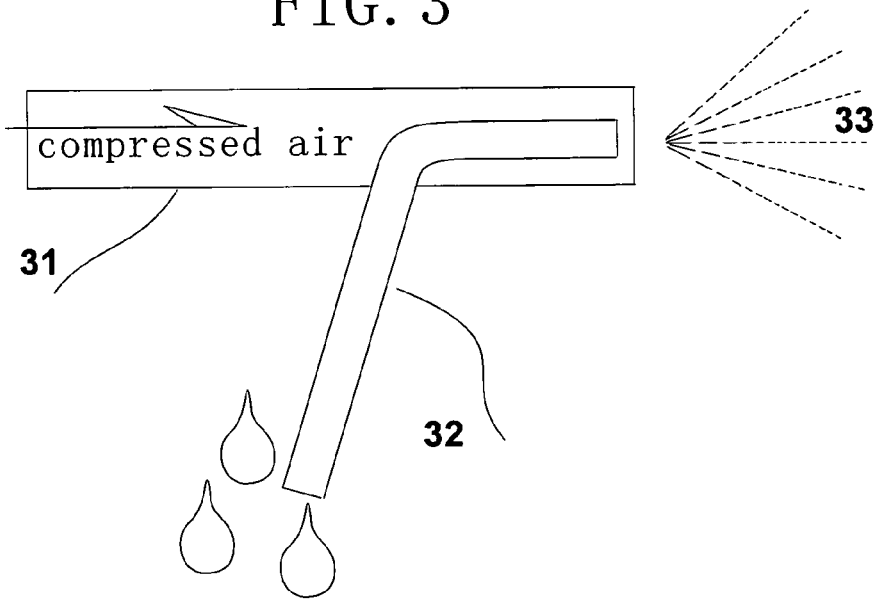

FIG. 4

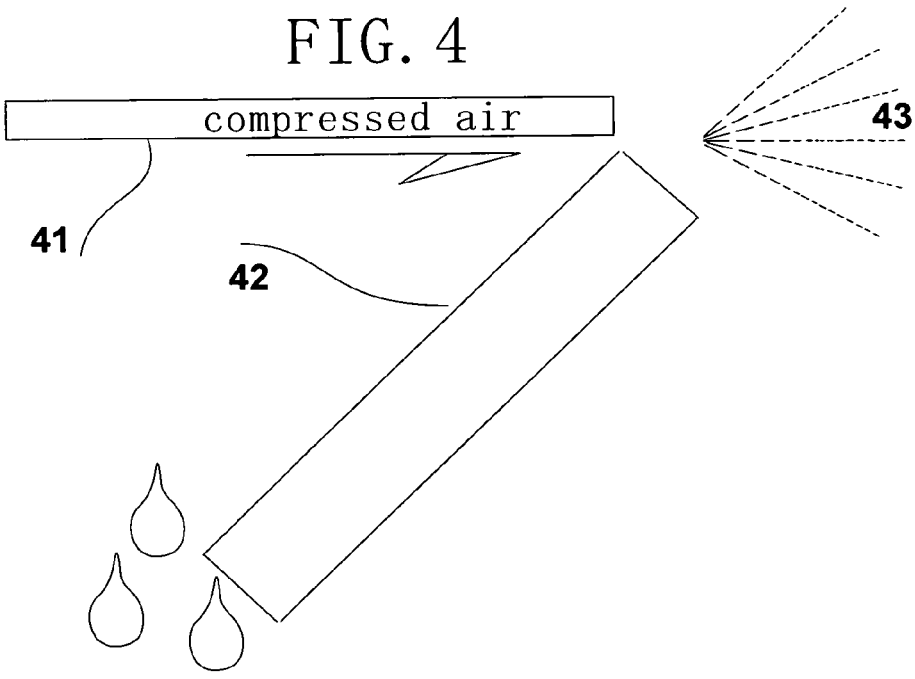

FIG. 5

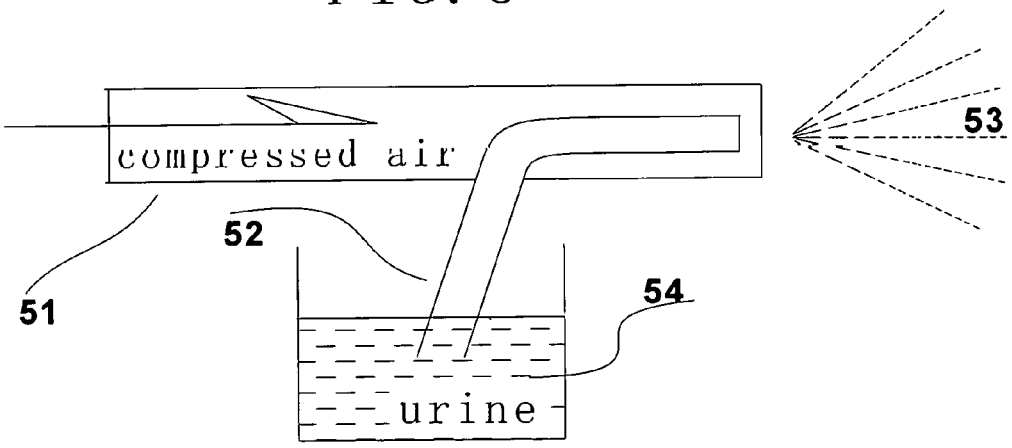
compressed air
53
52
51
54
urine

FIG. 6

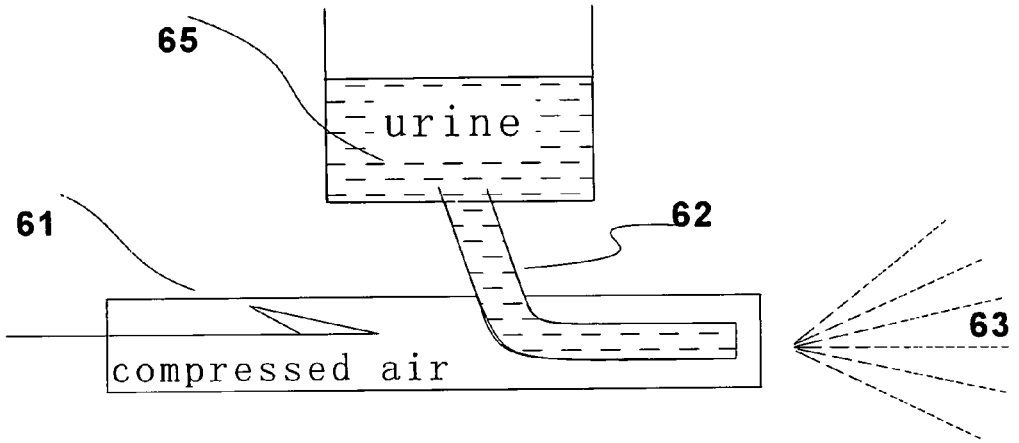
65
urine
61
62
63
compressed air

FIG. 7

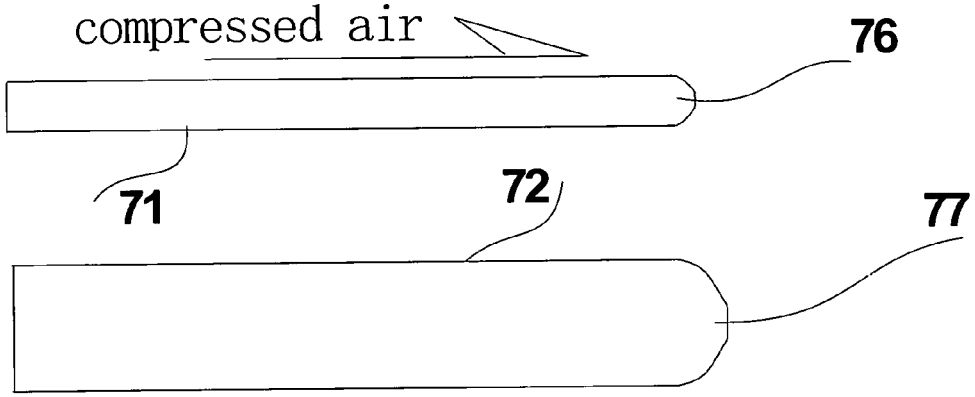

FIG. 8

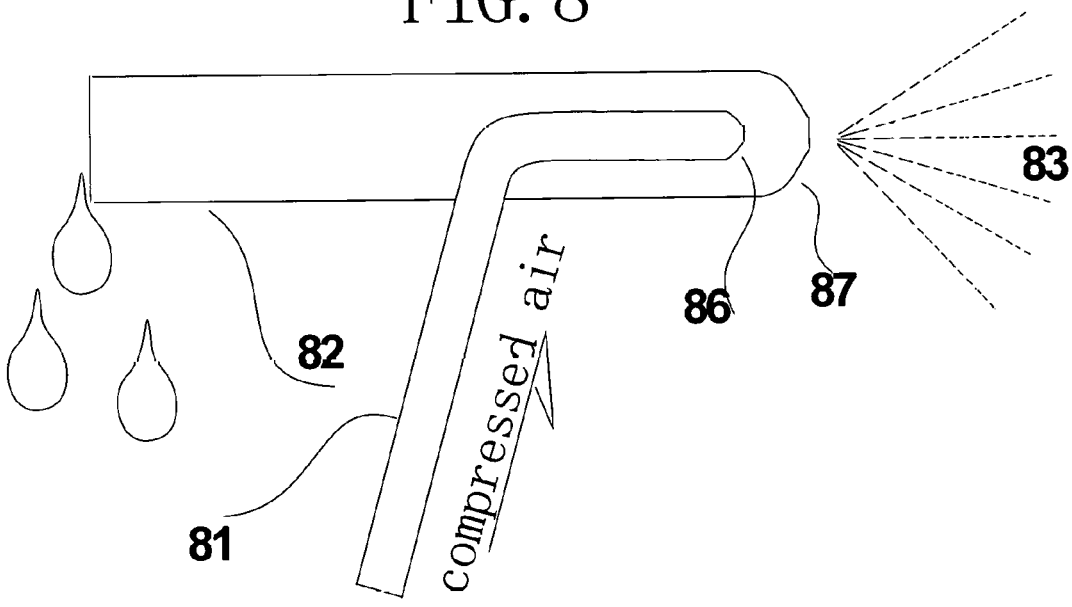

FIG. 9

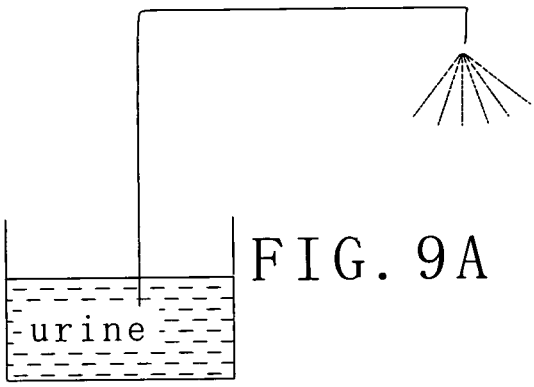

FIG. 9A

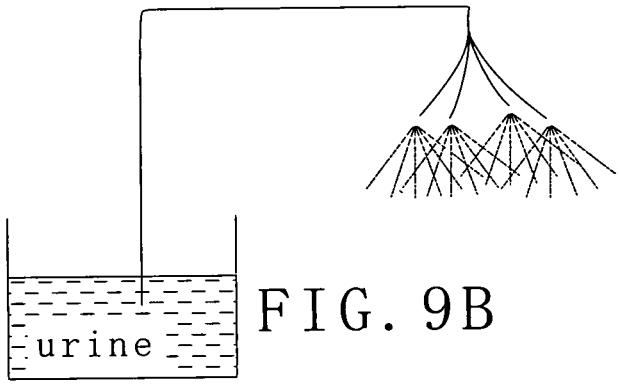

FIG. 9B

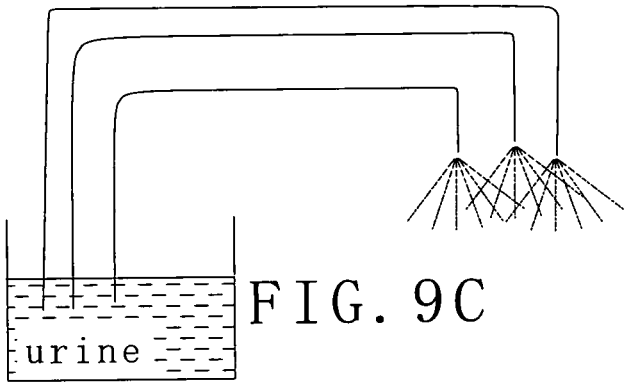

FIG. 9C

VERTICAL URINE SPRAYING FLUSHING TOILET DEVICE

FIELD

[0001] The contents of this application involve straight toilets, toilets without an S-shaped water seal where the and dirty liquid are flushed directly out the bottom of the toilet.

SUMMARY

[0002] A vertical urine spraying flushing toilet device, comprising: a compressed air tube and a pipe. The front end of said pipe is placed in the air flow zone formed by the compressed air tube; a urine is connected to the back end of said pipe; compressed air flows rapidly through said compressed air tube and the front end of the said pipe, forming a spray which is used to flush fecal waste. In addition to the advantage of urine being obtainable at close distances, those familiar with the industry may also discover other advantages of this application after reading the specification.

BRIEF DESCRIPTION OF THE DRAWINGS

[0003] FIG. **1**: Contains parts for a portion of the embodiments in this application, compressed air tube **11**, and pipe **12**.

[0004] FIG. **2**: Compressed air tube **21** and pipe **22**, the front end of pipe **22** is placed within the airflow zone of the compressed air tube **21**, the back end of pipe **22** is connected to the urine, forming spray **23**. Compressed air tube **21** is the center pipe.

[0005] FIG. **3**: Compressed air tube **31** and pipe **32**, the front end of pipe **32** is placed within the airflow zone of the compressed air tube **31**, the back end of pipe **32** is connected to the urine, forming spray **33**. Pipe **32** is the center pipe.

[0006] FIG. **4**: Compressed air tube **41** and pipe **42**, the back end of pipe **42** is connected to urine, compressed air tube **41** is placed at an angle with or perpendicular to pipe **42**, forming spray **43**.

[0007] FIG. **5**: Pipe **52** acting as the central pipe for the compressed air tube **51**, the back end of pipe **52** connects with urine **54**, forming spray **53**.

[0008] FIG. **6**: Pipe **62** acting as the central pipe for the compressed air tube **61**, the back end of pipe **62** connects urine located in high position **65**, forming spray **63**.

[0009] FIG. **7**: Compressed air tube **71**, nozzle **76** is attached to the front end of compressed air tube. Pipe **72**, nozzle **77** is attached to the front end of pipe.

[0010] FIG. **8**: Compressed air tube **81** and pipe **82**, nozzle **87** of pipe **82** is installed in the airflow zone of compressed air tube **81** nozzle **86**. The back end of pipe **82** is connected to the urine, forming spray **83**. Compressed air tube **81** is the center pipe.

[0011] FIG. **9**: An extension pipe may be connected between the back end of said pipe and said urine in a position to flush feces as shown in FIG. **9**A. The extension pipe can split into multiple terminals as shown in FIG. **9**B, or multiple parallel extension pipe may be used as shown in FIG. **9**C.

SPECIFICATION AND EMBODIMENTS

[0012] This application describes a vertical urine spraying flushing toilet device, comprising: a compressed air tube and a pipe. The front end of said pipe is placed in the air flow zone formed by the compressed air tube; urine is connected to the back end of said pipe; compressed air flows rapidly through said compressed air tube and the front end of the said pipe, forming a spray which is used to flush fecal waste.

[0013] Regarding said vertical urine spraying flushing toilet device, said urine may be urine separated from a toilet containing feces, or it may be urine from a separate urinal for male use, or other urine. The liquid used in the formation of the spray can be the water used for washing during everyday life, collected secondary or multiple water which is suitable for reuse, natural water, recycled water, municipal supplied water, user supplied water, or detergent.

[0014] The front end of said pipe is placed in the air flow zone formed by said compressed air tube, the positional relationship of the two may be as follows: Said pipe may act as the center pipe of said compressed air tube, or said compressed air tube may act as the center pipe of said pipe, or said compressed air tube may form an angle with said pipe. In other words, the compressed air tube can be on the outside of the pipe, the pipe can be on the outside of the compressed air tube, or the compressed air tube and the front end of the pipe can connect and naturally form an angle. The three aforementioned arrangements will form a spray.

[0015] The front end of said pipe and the front end of said compressed air tube may be nozzle-shaped.

[0016] There may also be an extension pipe connected between the back end of said pipe and said urine, used in the position for flushing fecal matter in straight toilets. Said extension pipe can be used as many parallel pipes, or it may be split to different terminals.

[0017] The source for the compressed air can be one of the following: an air pump, an air tank, an air pump working with an air tank, or an air compressor.

Embodiments

[0018] Embodiment 1: Contains a portion of the parts in this application as shown in FIG. **1**, compressed air tube **11** and-pipe **12**.

[0019] Embodiment 2: As shown in FIG. **2**, compressed air tube **21** is the center pipe of pipe **22**. The front end of pipe **22** is placed into the air flow zone of compressed air tube **21**. The back end of pipe **22** is connected to the urine, forming spray **23**.

[0020] Embodiment 3: As shown in FIG. **3**, pipe **32** is the center pipe of compressed air tube **31**. The front end of pipe **32** is placed into the air flow zone of compressed air tube **31**. The back end of pipe **32** is connected to the urine, forming spray **33**.

[0021] Embodiment 4: As shown in FIG. **4**, the front of compressed air tube **41** and the front of pipe **42** are placed close to each other, forming an angle. The front end of pipe **42** is in the airflow zone of compressed air tube **41**. The back end of pipe **42** is connected to the urine, forming spray **43**.

[0022] Embodiment 5: As shown in FIG. **5**, the front end of pipe **52** is placed in the air flow zone formed by compressed air tube **51**, the back end of pipe **52** is connected to the urine source **54**, forming spray **53**. The urine separated from the feces in the toilet is in a low position.

[0023] Embodiment 6: As shown in FIG. **6**, the front end of pipe **62** is placed in the air flow zone formed by compressed air tube **61**, the back end of pipe **62** is connected to the urine source **65**, forming spray **63**. The liquid source can be urine from a separate urinal for male use, secondary water, multiple water, natural water, recycled water, tap water, user supplied water, or detergent, in a high position.

[0024] Embodiment 7: As shown in FIG. **7**, FIG. **8**, the front end of compressed air tube **81** is formed into nozzle **86**, and the front end of pipe **82** is formed into nozzle **87**. Nozzle **87** is placed the air flow zone of compressed air tube nozzle **86**. The back end of pipe **82** is connected to the urine, forming spray **83**. Compressed air tube **81** is the center pipe.

[0025] Embodiment 8: As shown in FIG. **9**, the extension pipe may be connected between the back end of said pipe and said urine in a position to flush feces from straight toilets as shown in FIG. **9**A, the extension pipe can split into multiple terminals as shown in FIG. **9**B, or multiple parallel extension pipe may be used as shown in FIG. **9**C. Straight toilets are toilets without an S-shaped water seal where the feces and dirty liquid are flushed directly out the bottom of the toilet.

[0026] Embodiment 9: The extension pipe may be connected between the back end of said pipe and the urine of a separate urinal for male use. The compressed air tube nozzle is connected with the nozzle of the pipe, with the pipe being the central pipe, in a position to flush feces from a straight toilet.

[0027] Embodiment 10: The extension pipe may be connected between the back end of said pipe and the secondary water source. The compressed air tube nozzle is connected with the nozzle of the pipe, with the pipe being the central pipe, in a position to flush feces from a straight toilet. The source of the compressed air is an air tank with a pump.

[0028] Embodiment 11: The extension pipe may be connected between the back end of said pipe and the secondary water source. The compressed air tube nozzle is placed at an angle with the nozzle of the pipe, in a position to flush feces from a straight toilet. The source of the compressed air is an air pump.

[0029] Embodiment 12: The extension pipe may be connected between the back end of said pipe and the urine that is separated from feces in the toilet. The compressed air tube nozzle is connected with the nozzle of the pipe, with the compressed air tube being the central pipe, in a position to flush feces from a straight toilet. The source of the compressed air is an air compressor.

1. A vertical urine spraying flushing toilet device, comprising:

a compressed air tube;

a pipe; the front end of said pipe is placed in the air flow zone formed by the compressed air tube;

urine; connected to the back end of said pipe; compressed air flowing rapidly through said compressed air tube and the front end of the said pipe, forming a spray used to flush fecal waste.

2. Regarding the vertical urine spraying flushing toilet device as said in claim **1**, said urine may be urine separated from a toilet containing feces, or it may be urine from a separate urinal for male use, or it may be other urine.

3. Regarding the vertical urine spraying flushing toilet device as said in claim **1**, the liquid used in the formation of the spray can be the water used for washing during everyday life, collected secondary or multiple water which is suitable for reuse, natural water, recycled water, municipal supplied water, user supplied water, or detergent.

4. Regarding the vertical urine spraying flushing toilet device as said in claim **1**, the front end of said pipe is placed in the air flow zone formed by said compressed air tube, the positional relationship of the two may be as follows: said pipe may act as the center pipe of said compressed air tube, or said compressed air tube may act as the center pipe of said pipe, or said compressed air tube may form an angle with said pipe.

5. Regarding the vertical urine spraying flushing toilet device as said in claim **1**, the front end of said pipe and the front end of said compressed air tube may be nozzle-shaped.

6. Regarding the vertical urine spraying flushing toilet device as said in claim **1**, there may also be an extension pipe connected between the back end of said pipe and said urine, used in the position for flushing fecal matter from a straight toilet.

7. Regarding the vertical urine spraying flushing toilet device as said in claim **1**, said extension pipe can be used as many parallel pipes, or it may be split to different terminals.

8. Regarding the vertical urine spraying flushing toilet device as said in claim **1**, the source of the compressed air can be an air pump, an air tank, an air pump with an air tank, or an air compressor.

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