

No. 779,904.

PATENTED JAN. 10, 1905.

J. H. BORMANN.

COMBINED FLUSHING NOZZLE AND SPREADER.

APPLICATION FILED MAR. 18, 1904.

2 SHEETS—SHEET 1.

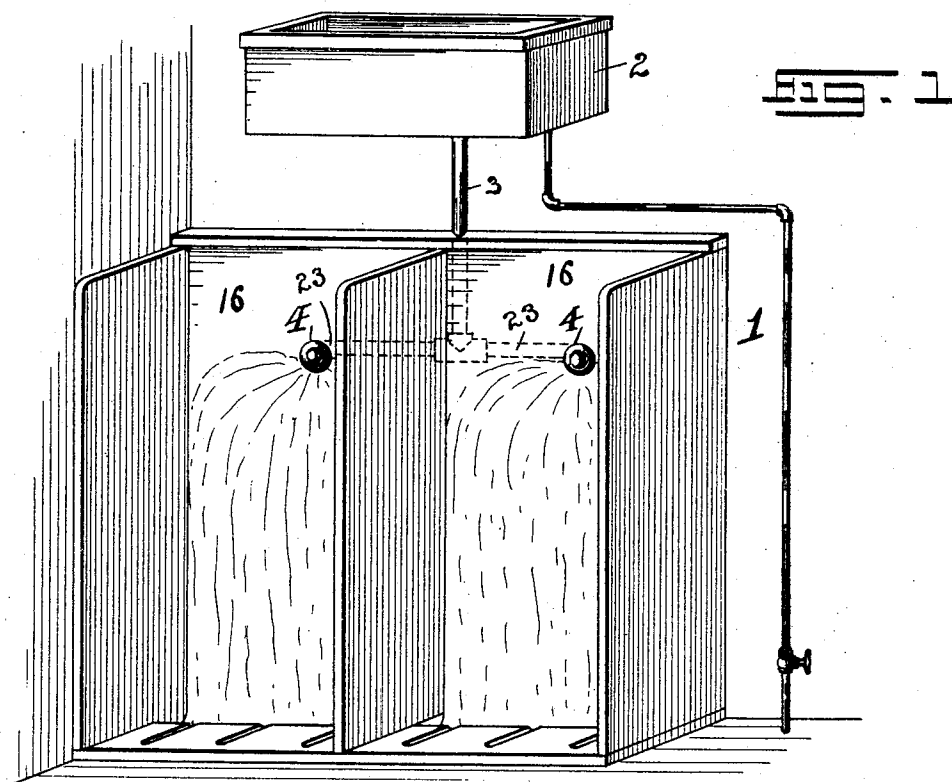
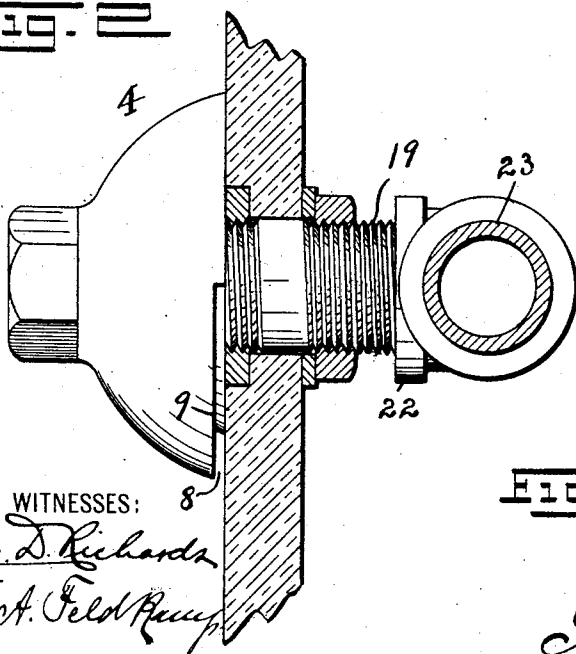


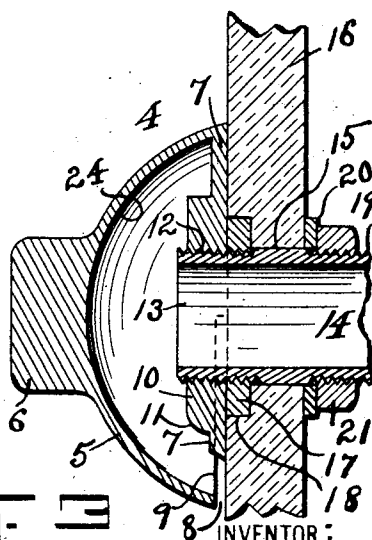
FIG. 2



WITNESSES:

Geo. D. Richards
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FIG. 3



INVENTOR:

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FIG. 4

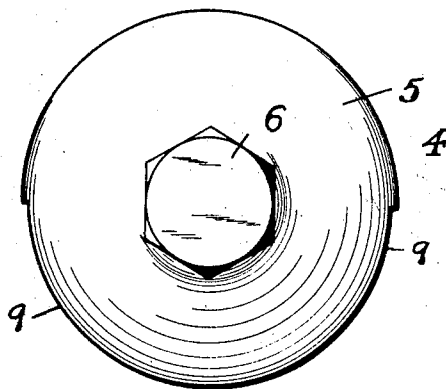
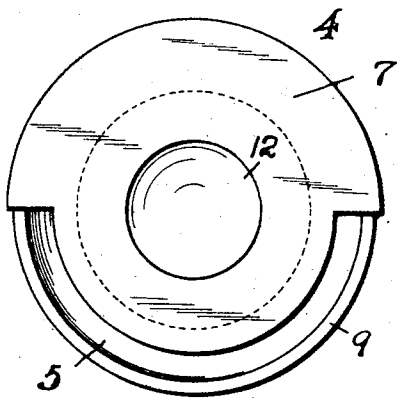


FIG. 5

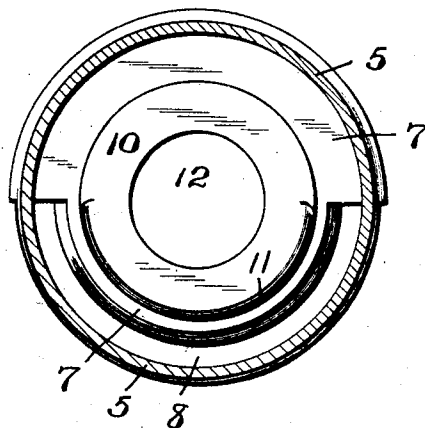


FIG. 6

WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN H. BORMANN, OF NEWARK, NEW JERSEY.

COMBINED FLUSHING-NOZZLE AND SPREADER.

SPECIFICATION forming part of Letters Patent No. 779,904, dated January 10, 1905.

Application filed March 18, 1904. Serial No. 198,774.

To all whom it may concern:

Be it known that I, JOHN H. BORMANN, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in a Combined Flushing-Nozzle and Spreader; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to numerals of reference marked thereon, which form a part of this specification.

This invention has reference to improvements in flushing-nozzles and spreaders for use in urinal-stalls; and the invention relates more particularly to a novel construction of flushing-nozzle and spreader which provides a simple and effective means for thoroughly cleansing and flushing the urinal-stall, thus securing a perfect sanitary condition, which is a very important and necessary feature of the same.

The invention has for its principal objects to provide a neat, simple, and cheaply-constructed nozzle and spreader which so controls the flow of water used in cleansing the urinal-stall that it is distributed evenly and with some force directly against the back of the stall, over the entire surface of which it is spread so that every part thereof receives a proper and thorough cleansing. As will be readily understood, the use of my present invention will therefore do away with certain objectionable features found in urinal-stalls in which perforated pipes and devices of a similar character are used for the purpose of flushing the stall, for where stalls are flushed by such means the entire back surface of the stall is seldom, if ever, covered with a complete sheet of water, but is simply washed down in streaks, leaving parts dry and unclean, and hence not in a perfect sanitary condition.

The invention therefore consists in the novel construction of flushing-nozzle and spreader hereinafter fully set forth; and, furthermore, this invention consists in the various arrangements and combinations of parts, all of which

will be fully described in the following specification and then finally embodied in the clauses of the claim.

The invention is clearly illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of urinal-stalls provided with my novel construction of flushing-nozzle and spreader. Fig. 2 is a vertical section through a portion of the back wall of the stall, showing the flushing-nozzle and spreader and means for attaching the same in elevation. Fig. 3 is a similar view showing the flushing-nozzle and spreader in vertical section. Figs. 4 and 5 are a front and rear view, respectively, of the combined flushing-nozzle and spreader; and Fig. 6 is a transverse vertical section of the same looking toward the back of the device.

Similar characters of reference are employed in the above-described views to indicate corresponding parts.

Referring now to the said drawings, the reference character 1 indicates a complete urinal-stall provided with any well-known form of flushing-tank 2, the outlet-pipe 3 of which distributes the water to the flushing-nozzles and spreaders 4.

The flushing-nozzle or spreader 4 comprises a shell 5, preferably spherical in form, the same being provided on its outer surface with a nut-shaped member or head 6, forming an integral part of the said bell-shaped member or shell 5, for the purpose of providing means for gripping the said nozzle 4 with a wrench or like tool when placing the said nozzle in position. The said shell 5 is further provided with a back or web 7, also preferably forming an integral part of the said shell 5, said back or web 7 extending partially around and completely closing the upper portion of the said shell 5, at the same time also nearly closing the entire back of the said bell-shaped shell or body 5 and being of such construction that a semicircular opening 8 extends around the lower portion of the said member or shell 5, the said member or shell 5 being cut away or foreshortened around its lower edge 9 to complete the said opening 8. The said back or web 7 is further provided with a boss 10, having its lower edge 11 rounded, so as to per-

mit the free and unresisted passage of the water through the opening 8, and into the said boss 10 of the back web 7 is tapped a screw-threaded opening 12 or for the purpose of receiving one end 13 of a nipple 14. The said nipple 14 is passed through an opening 15 in the back wall 16 of the urinal-stall 1, being held in place by a ring-shaped washer or nut 17, which in turn is received into the counter-sunk recess 18 in the said wall 16, thus assuring a flat surface against which to fasten the flushing-nozzle 4 when screwed upon the end 13 of the nipple 14. Upon the other screw-threaded end 19 of the said nipple 14 is placed a washer 20 and a nut 21, which is screwed up tightly against the wall 16, thus locking and holding the entire device in its proper operative position. Upon the end 19 of the nipple 14 is screwed an elbow 22, into which is received a pipe 23, which is connected with the pipe 3, leading from an automatic flushing-tank 2.

It will now be clearly evident that when the water from the flushing-tank 2 is distributed to the flushing-nozzle or spreader 4 it passes through the nipple 14 into the shell 5, strikes the inner concave surface 24 of the said bell-shaped member or shell 5, and is thence spread and forced through the opening 8 directly against the surface of the back wall 16 of the urinal-stall and is spread over the entire surface of the said wall 16, as illustrated in Fig. 1 of the drawings.

From the previous description of my invention it will be seen that I have devised a simply-constructed flushing-nozzle and spreader readily adapted to thoroughly cleanse and keep in perfect sanitary condition urinal-stalls.

I am aware that some changes may be made in the arrangements and combinations of the parts without departing from the scope of my invention. Hence I do not limit this invention to the exact arrangements and combinations of the parts as described in the foregoing specification and as illustrated in the accompanying drawings, nor do I confine myself to the exact details of the construction of the said parts.

Having thus described my invention, what I claim is—

1. A combined flushing-nozzle and spreader for urinal-stalls and the like, comprising a bell-shaped member having a web member which completely closes the upper half of the back of said bell-shaped member, but which forms with the marginal edge of the lower half of the member a semicircular outlet for the water, substantially as and for the purposes set forth.

2. A combined flushing-nozzle and spreader for urinal-stalls and the like, comprising a bell-shaped member having a web member which completely closes the upper half of the back of said bell-shaped member, but which forms with the marginal edge of the lower half of the member a semicircular outlet for the water, and means connected with the central portion of said web for attaching the said flushing-nozzle and spreader in position, substantially as and for the purposes set forth.

3. A combined flushing-nozzle and spreader for urinal-stalls and the like, comprising a bell-shaped member having a web member which completely closes the upper half of the back of said bell-shaped member, but which forms with the marginal edge of the lower half of the member a semicircular outlet for the water, and a boss formed on said web, provided with a screw-threaded opening for attachment of said flushing-nozzle and spreader to a pipe, substantially as and for the purposes set forth.

4. A combined flushing-nozzle and spreader for urinal-stalls and the like, comprising a bell-shaped member having a web member which completely closes the upper half of the back of said bell-shaped member, but which forms with the marginal edge of the lower half of the member a semicircular outlet for the water, a nut-shaped head extending from the outer face of said bell-shaped member, and means connected with said web for attaching the said flushing-nozzle and spreader in position, substantially as and for the purposes set forth.

5. A combined flushing-nozzle and spreader for urinal-stalls and the like, comprising a bell-shaped member having a web member which completely closes the upper half of the back of said bell-shaped member, but which forms with the marginal edge of the lower half of the member a semicircular outlet for the water, a nut-shaped head extending from the outer face of the said bell-shaped member, and a boss formed on the said web, provided with a screw-threaded opening for attachment of the said flushing-nozzle or spreader to a pipe and said boss having a lower rounded edge 11, substantially as and for the purposes set forth.

In testimony that I claim the invention set forth above I have hereunto set my hand this 14th day of March, 1904.

JOHN H. BORMANN.

Witnesses:

FREDK. C. FRAENTZEL,
GEO. D. RICHARDS.