

D. A. EBINGER.
VENTILATING DEVICE FOR URINALS.
APPLICATION FILED JUNE 26, 1909.

966,535.

Patented Aug. 9, 1910.

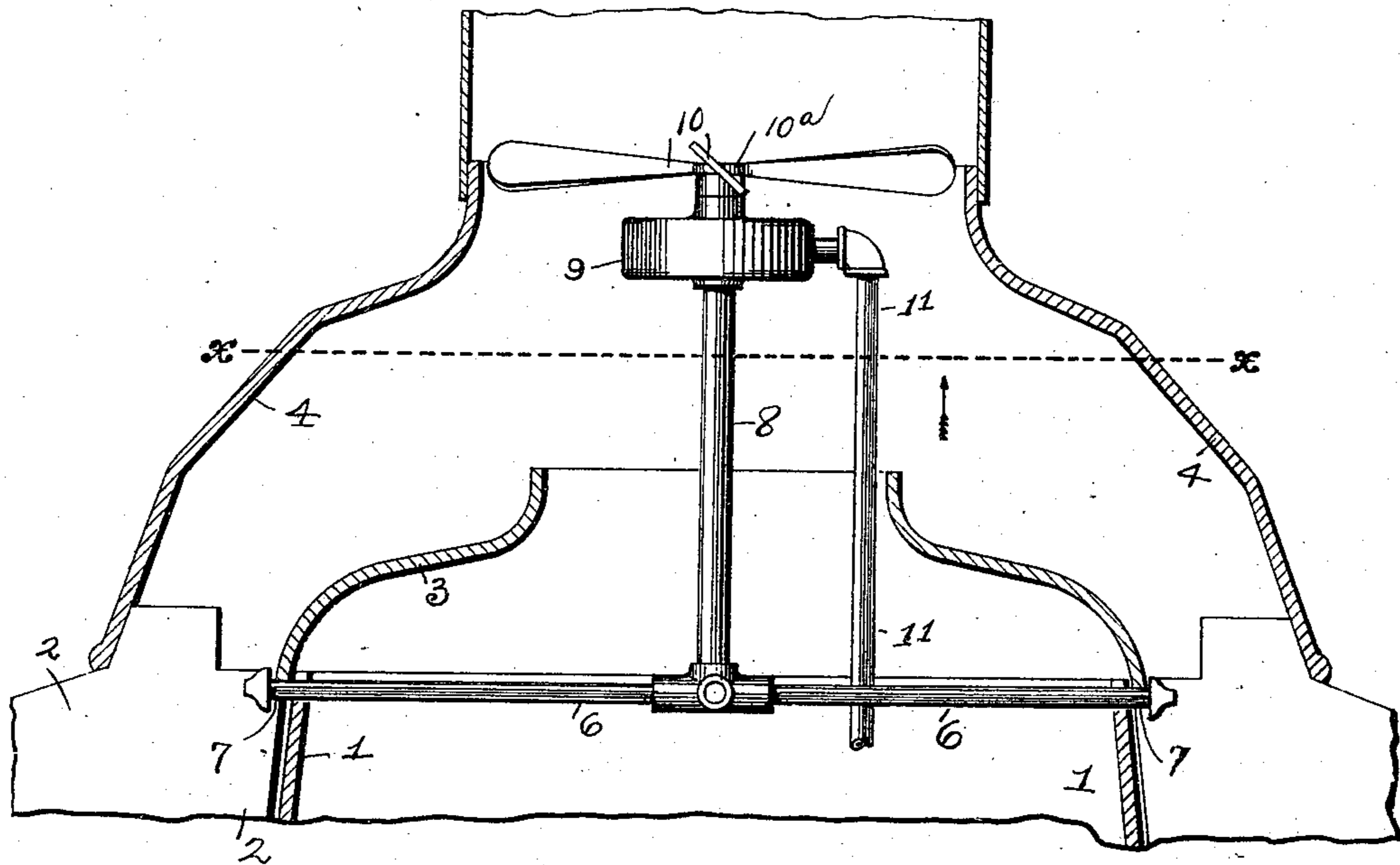
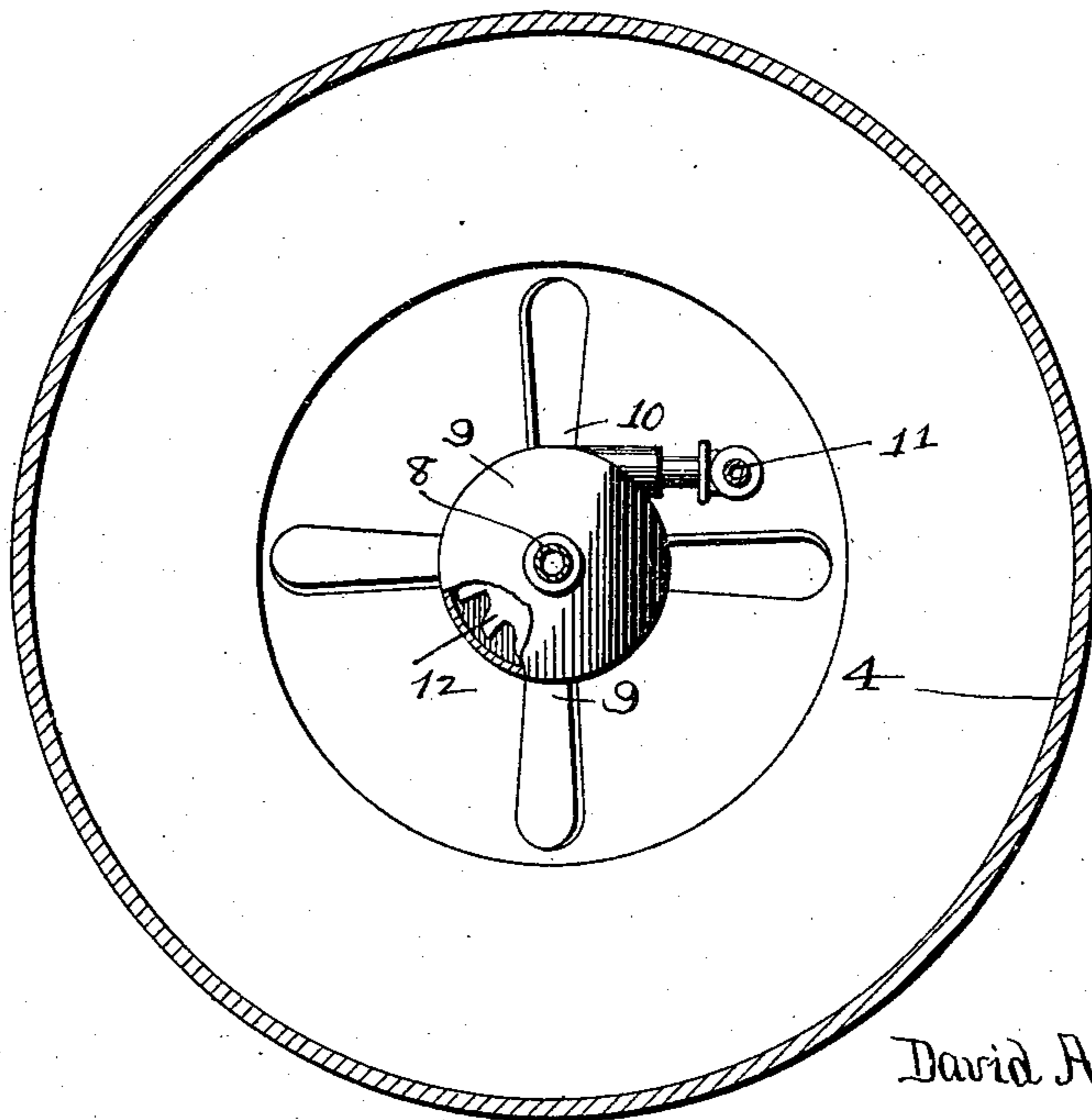


Fig. 1.



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Witnesses

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Fig. 2.

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UNITED STATES PATENT OFFICE.

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VENTILATING DEVICE FOR URINALS.

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Specification of Letters Patent.

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Application filed June 26, 1909. Serial No. 504,427.

To all whom it may concern:

Be it known that I, DAVID A. EBINGER, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Ventilating Devices for Urinals, of which the following is a specification.

My invention relates to the improvement of ventilating devices for urinals and closets and the objects of my invention are to provide in conjunction with urinals or other similar structures where water is used for flushing purposes, means for withdrawing noxious gases and odors and to utilize the flushing water for operating said withdrawing or ventilating means, and to produce other improvements the details of which will be more fully pointed out hereinafter. These objects I accomplish in the manner illustrated in the accompanying drawing, in which:

Figure 1 is a central vertical section of the dome or upper casing extension of a urinal structure, showing my improved ventilating means in elevation therein, and, Fig. 2 is a sectional view on line $x-x$ of Fig. 1.

Similar numerals refer to similar parts throughout the several views.

For the sake of illustration, I have shown my device in connection with the upper portion of a urinal structure of that class in which an upright casing such as is partly indicated at 1, is provided externally with radially arranged stalls, two of the dividing walls of which are indicated at 2. Rising from about the upper end of the casing structure member 1 of the urinal structure, is a hood or partial dome 3 having its upturned reduced upper end portion open as indicated. Rising from the partitions 2 is an external and higher dome-like casing 4, the upper open end portion of which is also reduced and which is connected with a ventilating pipe 5 which leads to the external atmosphere. In urinal structures of this class, it is customary to provide water supply pipe arms such as are indicated at 6, the discharge ends of which are supported on the outer sides of the upper end portion of the urinal structure 1, said pipe arms being provided near their closed ends, with water outlets 7, which water is discharged downward against the outer surfaces of the structure 1 in each stall thereof. These water conducting pipe arms 6, ordinarily lead to a

source of city water supply, but in carrying out my invention, I connect said pipe arms 6 with the lower end of a central vertical pipe 8 which preferably passes upward through the internal dome 3 and upon which is mounted the casing 9 of a suitable form of water motor, said pipe 8 being connected with said water motor casing and forming the exhaust outlet therefor.

With the main shaft of the water motor is connected above said motor, the central hub member 10^a of a suitable form of fan 10 comprising a desirable number of radially arranged blades set at such angles as to insure an upward movement of air when said fan is rotated. With the water motor casing is connected a water pipe 11, which preferably leads from a city water supply main. As will be readily understood, the water which passes through the pipe 11 into the motor casing 9, operates in the usual manner to rotate the motor wheel 12 and to impart rotary motion to the motor shaft with which the fan 10 is connected. In this manner a desirable rapid rotation is imparted to the fan, with the result that the noxious odors or gases which may rise from the urinal stalls or from within the urinal structure 1, will be forced upward and outward through the ventilating pipe 5. The water which is thus utilized for operating the motor and fan, escapes from the motor casing through the pipe 8 thence through the flushing pipe arms 6, from which it is discharged against the walls of the various stalls in the usual manner. From this operation, it will readily be seen that the water ordinarily used for flushing purposes, is utilized for the purpose of imparting rotation to a ventilating fan, thus obviating the necessity of providing separate power means for producing the desired ventilation.

Although I have described my invention as used in conjunction with a urinal, for which it is particularly intended, it is obvious that the flushing and ventilating means described will be applicable to other similar structures, such as water closets.

From the foregoing description, it will be seen that simple and efficient means are herein provided for accomplishing the objects of the invention, but while the elements shown and described are well adapted to serve the purposes for which they are intended, it is to be understood that the invention is not limited to the precise construction set forth,

but includes within its purview such changes as may be made within the scope of the appended claim.

What I claim, is:

- 5 In a ventilating and flushing mechanism, the combination with a centrally disposed, upright casing, provided with a plurality of radially arranged stalls, of a substantially annular hood common to all of said stalls,
10 the upper portion of said hood being open, a ventilating pipe leading from the open upper portion of said hood, a dome located within said casing and having an open top, a fan disposed above the top of the dome and

within the upper portion of the hood, a 15 water motor for driving said fan, a water supply pipe leading to the casing of said motor, a discharge pipe leading from the casing of said motor, and a plurality of radially arranged pipes leading from said 20 discharge pipe to said stalls.

In testimony whereof I affix my signature in presence of two witnesses.

DAVID A. EBINGER.

Witnesses:

L. CARL STOUGHTON,
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