The present invention relates to toilet seats and supporting means therefor.

An object of this invention is to provide a device of this character which is adapted to be used where sewers are not available, the device being so constructed as to be readily cast from suitable molds.

Another object of this invention is to provide a toilet seat having a cover which is so mounted as to be maintained in closed position at all times but which may be readily swung upwardly when desired.

The above and various other objects and advantages of this invention will in part be described and in part be understood from the following detailed description of the present preferred embodiment, the same being illustrated in the accompanying drawings wherein:

Figure 1 is a fragmentary vertical section of a device constructed according to the preferred embodiment of this invention;

Figure 2 is a fragmentary top plan view of the device;

Figure 3 is a fragmentary enlarged sectional view partly in detail showing the construction of the seat and cover supporting member; and

Figure 4 is a fragmentary detail side elevation of the hinge plate showing the manner of mounting the vent in the plate.

Referring to the drawings wherein like numerals of reference designate corresponding parts throughout the several views, the numeral 10 designates generally a supporting structure or riser which is adapted to be mounted in vertically disposed position, the supporting structure 10 being substantially cylindrical or oval in form and having the rear wall 11 thereof converging upwardly.

A conventional seat 12 is adapted to be hingedly mounted on the upper end of the support 10 and the lower end of the support 10 is provided with a flange 13 by means of which the support 10 may be secured over the desired opening.

The cover 12 is hingedly secured to the support 10 by means of a hinge structure generally designated as 14, the hinge structure 14 comprising a plate member 15 which is provided with outstanding spaced arms 16, the spaced arms 16 having a forwardly opening notch 17 therein for removably receiving a shaft 18, the shaft 18 being secured adjacent the opposite ends thereof in rearwardly extending lugs or arms 19 carried by the seat 12. A rearwardly extending eye bolt 19 is positioned on the shaft 18, the free end of the bolt 19 being provided with threads whereby to threadably receive a nut 20.

A spring 21 is adapted to be positioned about the periphery of the bolt 19, and the nut 20 is adapted to engage one end of the spring so as to tension the spring, the opposite end of the spring engaging against the inner end of a casing 22 which is mounted about the spring 21, the outer end of the casing 22 being preferably open and the inner end provided with a flange against which the inner end of the spring 21 contacts.

The inner end of the casing 22 frictionally engages against an upstanding cover supporting member 28 which is provided with a concave portion for receiving the inner end of the sleeve 29.

The lower end of the support member 23 is secured to the hinge plate 15.

A cover or closure member 24 which is provided with rearwardly extending arms 25 is pivotally mounted on the shaft 18 intermediate the upstanding arms 16, and a bracing member 26 is secured between the supporting arms 28 and positioned rearwardly of the rear edge of the cover member 24. The cover 24 is adapted to be swung upwardly and the transverse brace 26 is adapted to engage against the vertically disposed portion 27 of the supporting member 28, and the member 23 is adapted to normally urge the cover 24 forwardly past the center of gravity so that it will drop downwardly into closed position.

The upper end of the support member 23 is provided with a horizontally disposed member 29 which, when the cover 12 is in substantially vertical position, is adapted to engage against the cover for holding the cover up-right.

The plate member 15 is provided with a relatively large opening 29, the opening 29 having an eccentric portion 30 and a vent 31.
member 31 which is provided with an eccentric ring 32 is adapted to removably engage the plate 15 in the opening 29 thereof, the eccentric ring 32 of the vent being adapted to register with the eccentric opening 30 so that the vent 21, upon the plate:15, may be mounted on the supporting structure 10 without removing the hinge plate 15. A screen structure 33 is adapted to be interposed between the inner end of the vent member 31 and the outer wall of the riser 10. The vent plate 15 is provided with a suitable offset portion 34 in which the eccentric 32 is adapted to be positioned when the eccentric is partially rotated so as to firmly lock the vent 21 on the supporting structure 10 and upon the plate 15.

In the use of this device, when the cover 24 is swung upwardly so that the transverse member 26 engages the support 23 the seat 12 may be moved forwardly by pressing the upper end of the cover 24 rearwardly. The forward movement of the seat 12 will co-operatively move the pivotal shaft 18 forwardly in the slot 17 and increase the tension on the spring 21. The cover will be held in rearwardly inclined position by placing a weight on the seat 12, but when the weight is removed the spring 21 will pull the shaft 18 rearwardly and co-operatively swing the upper end of the cover 24 forwardly past the center of gravity so that it will fall into closed position.

It will be obvious from the foregoing that the structure herein disclosed may be readily cast in metal or the like and suitably painted or enameled so as to render the structure impervious to moisture and corrosion. It is, of course, understood that various changes and modifications may be made in the details of construction and design of the above specifically described embodiment of this invention without departing from the spirit thereof, such changes and modifications being restricted only by the scope of the following claims:

What is claimed is:

1. A closet of the character described comprising a vertically disposed hollow base, a seat, a cover, means for hingedly mounting said seat and said cover on the base, said mounting means comprising a plate member, and a pair of vertically disposed horizontally slotted arms secured to said plate member and adapted for engagement with said seat and said cover, a pivotal member for said seat and cover slidably engageable in said slotted arms and means for urging said pivotal member rearwardly of said arms.

2. A closet of the character described comprising a base, a seat, a cover, means for hingedly mounting said seat and said cover on the base, an upright support for holding said cover and said seat in upright position, and spring-pressed means engaging said hinge mounting means whereby to normally urge the cover forwardly past the center of gravity and into a closed position.

3. A closet of the character described comprising a base, a seat, a cover, means for slidably and hingedly mounting said seat and said cover on said base, a cover supporting member upstanding from said hinge means, and resilient means carried by the hinge means and engaging said cover supporting member whereby to resiliently force the cover from an upright rearwardly inclined position to a horizontal closed position.

In testimony whereof I hereunto affix my signature.

GENERAL W. HUMPHRIES.