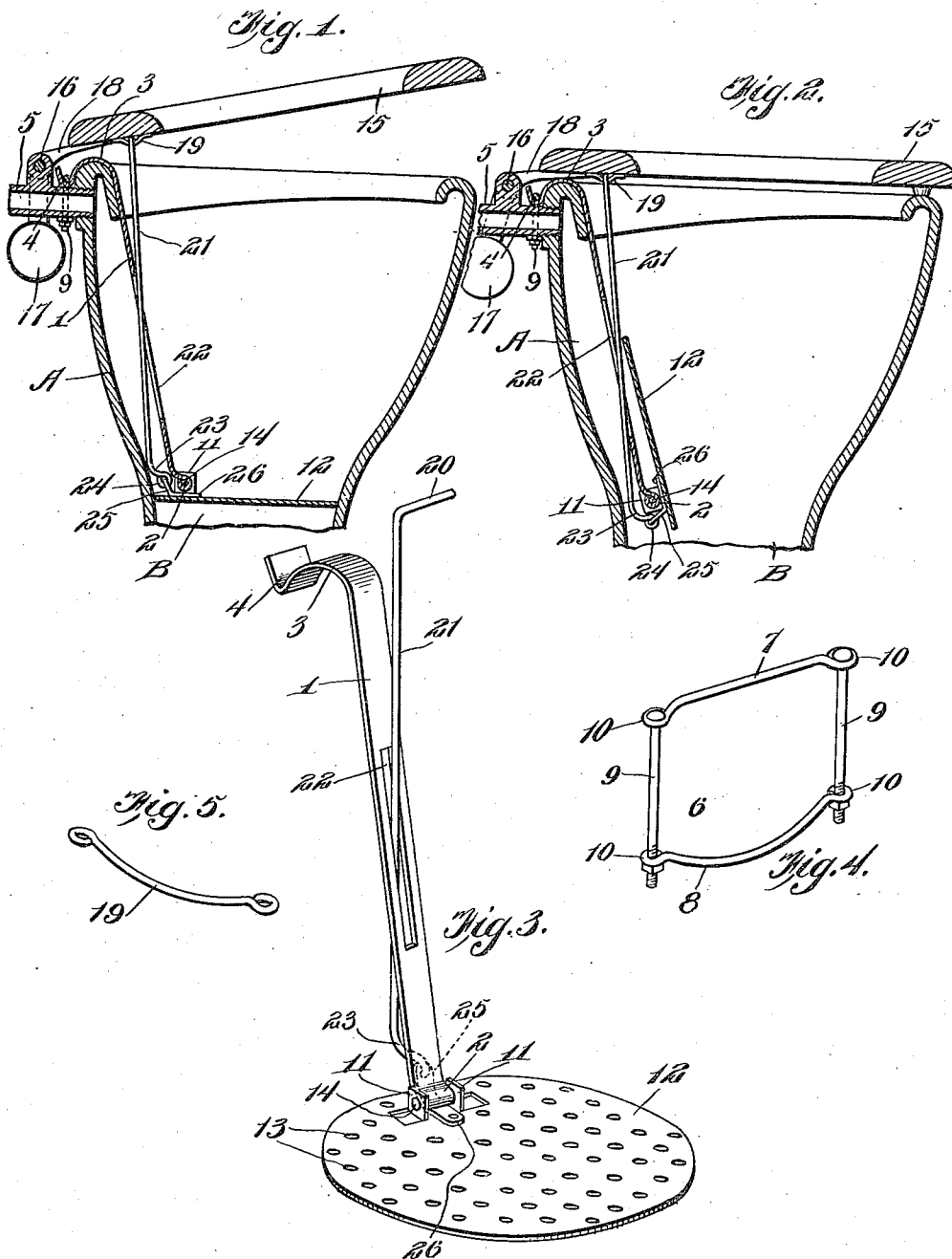


A. EBERT.
 STRAINER FOR CLOSET BOWLS.
 APPLICATION FILED JAN. 8, 1913.

1,063,247.

Patented June 3, 1913.



WITNESSES

Louis P. Heinrichs
E. A. Wakefield

INVENTOR:

Anthony Ebert,
 By *C. C. Hines*, Attorney.

UNITED STATES PATENT OFFICE.

ANTHONY EBERT, OF BALTIMORE, MARYLAND.

STRAINER FOR CLOSET-BOWLS.

1,063,247.

Specification of Letters Patent.

Patented June 3, 1913.

Application filed January 8, 1913. Serial No. 740,823.

To all whom it may concern:

Be it known that I, ANTHONY EBERT, a citizen of the United States, residing at Baltimore city, State of Maryland, have invented certain new and useful Improvements in Strainers for Closet-Bowls, of which the following is a specification.

This invention relates to strainer attachments for water-closet bowls or the like; and it has for its primary object the provision of a device of this character which may be used in connection with any well known form of automatic flushing mechanism which is controlled through movements of the seat or other equivalent portion of the bowl structure.

Another object of the invention is the provision of mechanism for rendering the strainer inoperative while the bowl is being flushed and to automatically restore the strainer to an operative position immediately after the flushing operation.

Another object of the invention is to provide mechanism which will be positively operated or controlled through movements of the seat so that when the latter is moved away from the hopper of the bowl, the strainer will be projected across the throat or discharge end of the hopper.

A further object of the invention is the provision of a strainer which may be applied to any well known form of bowl and seat structure without necessitating elaborate changes in the construction thereof.

A still further object of the invention is to provide a strainer which may be applied to the bowl with facility and removed therefrom in a comparatively short space of time when it is desired to clean the same.

Another object of the invention is the provision of a support which may be operatively connected with the bowl structure and with the foraminous straining element and to combine said support with such form of straining element as will be gravitationally moved across the throat of the bowl when the seat is elevated.

With these and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts, as will be hereinafter described and claimed.

In the accompanying drawings:—Figure 1 is a vertical section through a portion of a closet bowl, showing the seat in an elevated position and illustrating the applica-

tion of the strainer thereto; Fig. 2 is a similar view, showing the seat in an operative position against the hopper; Fig. 3 is a perspective view of the strainer attachment disconnected from the bowl; Fig. 4 is a perspective view of the attaching clip; and Fig. 5 is a perspective view of the pipe embracing element of the clip.

With a view to providing a strainer which will be automatically projected across the discharge throat of the bowl when the seat is in an elevated position whereby to positively prevent foreign particles or waste-matter from being carelessly discharged into the waste-pipe of a closet apparatus, I provide a strainer attachment which preferably includes a relatively narrow supporting arm 1 constructed of flat sheet metal bent at its lower end to provide a hinge knuckle 2 and at its upper end to form a curved rest 3, which embraces the hopper of the bowl A, as shown in Figs. 1 and 2. The said hopper engaging rest 3 is terminally projected into a hook 4 which overlies the intake end 5 of a flush-pipe. This pipe may form a portion of any suitable well known form of automatic flushing mechanism which is controlled positively through movements of the seat or like movable portion of the bowl whereby to flush the bowl when the seat is operatively extended across the hopper.

The attaching clip 6 comprises an upper straight bar 7, which is extended through the hook 4 of the supporting arm, a lower curved bar 8 which embraces the underside of the pipe 5, and clamping bolts 9, the latter being operatively extended through alined eyes 10 of the bars 7 and 8.

The supporting arm 1 is preferably extended downwardly and inwardly at an angle from the rear of the hopper of the bowl, and as illustrated the knuckle 2 of the arm is spaced from the adjacent rear wall of the bowl at the throat end B thereof. Said knuckle is associated with spaced ears 11, which are struck up from the body portion of a straining element 12. The element 12 is preferably constructed of flat sheet metal and is made foraminous through providing therein any required number of apertures 13. The straining element is preferably circular or formed to correspond with the transverse configuration of the throat B of the bowl, so that the edges thereof will be advanced against the inner walls of the

throat of the bowl when the seat is elevated, as shown in Fig. 1. A hinge pin 14 extends through the ears 11 and through the knuckle 2, so that the straining element can be properly swung to the required positions on movements of the seat. The hinged connection of the straining element which is formed through the construction just described permits said element to gravitationally assume an operative extended position across the throat of the bowl when the seat is elevated.

The seat 15 is connected with the bowl structure at 16, so that it may be swung to different positions relatively of the hopper of the bowl as the occasion demands, being normally sustained in an elevated position through the provision of a weight 17, which may be made to cooperate with the flushing mechanism, so that the bowl will be flushed simultaneously on the closing of the seat against the hopper of the bowl. The bracket 18 which connects the seat with the hopper is provided with an elongated loop 19, which receives the right angularly projecting portion 20 of a controlling rod 21. This rod extends through a relatively long slot 22 which is formed in the length of the arm 1, and as illustrated the rod is extended to a point in the bowl where it slightly overlies the straining plate. The rod is then offset at 23 and terminally provided with an eye 24 which is associated with an upstanding portion 25 of a crank arm or plate 26. The portion 25 is located directly behind the point of hinged connection between the straining plate and the supporting arm 1, so that the required leverage may be applied to said element to effect different degrees of movement thereof during movements of the seat 15.

From the construction described, it is evident that when the seat 15 is elevated, the arm 21 will be moved so as to operatively extend the element 12 across the throat of the bowl. When the seat is extended against the hopper during the flushing operation, the element 12 will be elevated and extended angularly in the direction of the rear wall of the bowl, thereby assuming an inoperative position beyond the center of the throat of the bowl.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention, as claimed.

Having thus described my invention, what I claim is:—

1. The combination with a closet bowl, and a swinging seat therefor, of a support-

ing arm extending into the bowl, a strainer pivotally mounted on said arm for movement toward or from the throat of the bowl, and an operating rod directly connecting said strainer with the swinging seat.

2. The combination with a closet bowl, and a swinging seat therefor, of a supporting arm extending into the bowl, a strainer pivotally mounted for movement toward and from the throat of the bowl, and an operating rod pivoted at one end to the strainer and pivotally and slidably connected at its opposite end with the seat.

3. The combination with a closet bowl structure including a swinging seat, of a supporting arm depending into the bowl, a strainer pivoted to said arm for movement toward and from the throat of the bowl, and a direct operating connection between the strainer and swinging seat.

4. The combination with a closet bowl structure including a swinging seat, of a supporting arm depending into the bowl, a strainer pivoted to said arm for movement toward and from the throat of the bowl, and a rod in guided connection with said arm and coupling the strainer to the seat for operation thereby.

5. The combination with a closet bowl structure including a swinging seat, of an arm depending downwardly and forwardly at an angle into the bowl, a strainer pivoted to said arm for movement toward and from the throat of the bowl, and an operating rod extending at an angle to and in guided connection with the arm, said rod being coupled to the swinging seat and pivotally connected with the strainer at a point in rear of its pivotal connection with the arm.

6. The combination with a closet bowl structure including a swinging seat, of an arm depending into the bowl and having a longitudinal slot, a strainer pivoted to said arm for movement toward and from the throat of the bowl, and an operating rod extending through said slot in the arm, said rod being pivotally coupled at its upper end to the swinging seat and pivotally coupled at its lower end to the strainer in rear of the pivotal connection of said strainer with the arm.

7. The combination with a closet bowl and a swinging seat therefor, of a bracket arm detachably mounted on the bowl and extending thereinto, a foraminous member pivoted to the arm, said arm having an elongated slot therein and a controlling rod slidable through the slot and operatively connecting the seat with said foraminous member.

8. As a new article of manufacture, a strainer for closet bowls including, an arm, a pivoted plate and a controlling rod slidable on the arm and hingedly connected with said plate.

9. As a new article of manufacture, a
strainer for closet bowls including an arm,
a plate pivoted to the arm and having an
extension in rear of its pivotal point, and a
5 controlling rod slidable on and in a plane at
an angle to the plane of the arm and piv-
otally coupled to the plate extension.

10. As a new article of manufacture, a
strainer for closet bowls including an arm
10 having an elongated slot therein, a pivoted

plate, and a controlling rod slidable through
the slot in the arm and hingedly connected
with said plate.

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

ANTHONY EBERT.

Witnesses:

ALFRED FLUTKA,
VICTOR E. HIRSHAUER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."