

No. 626,242.

Patented June 6, 1899.

J. MICHEL.

AUTOMATIC DISINFECTING DEVICE.

(Application filed Dec. 14, 1898.)

(No Model.)

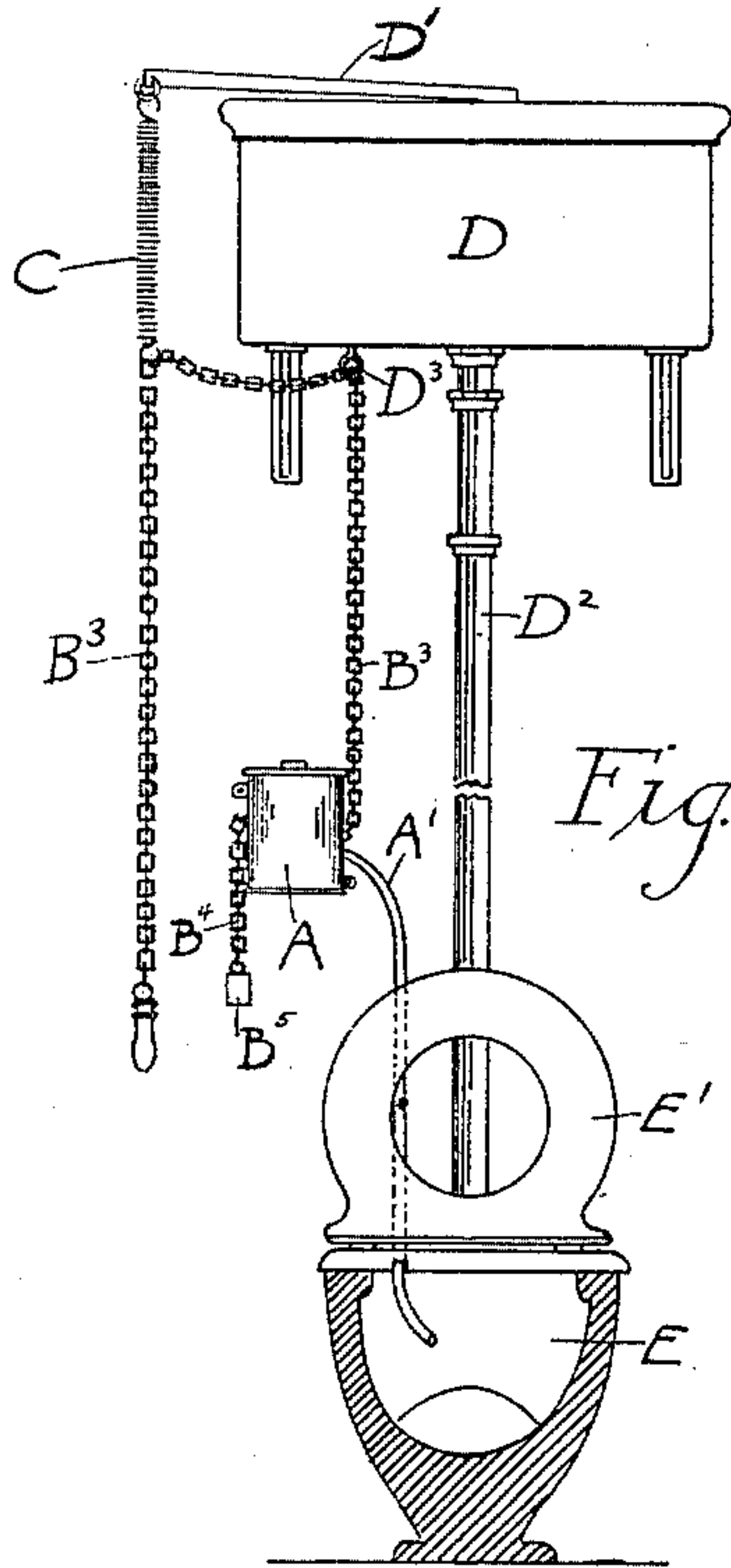


Fig. 1

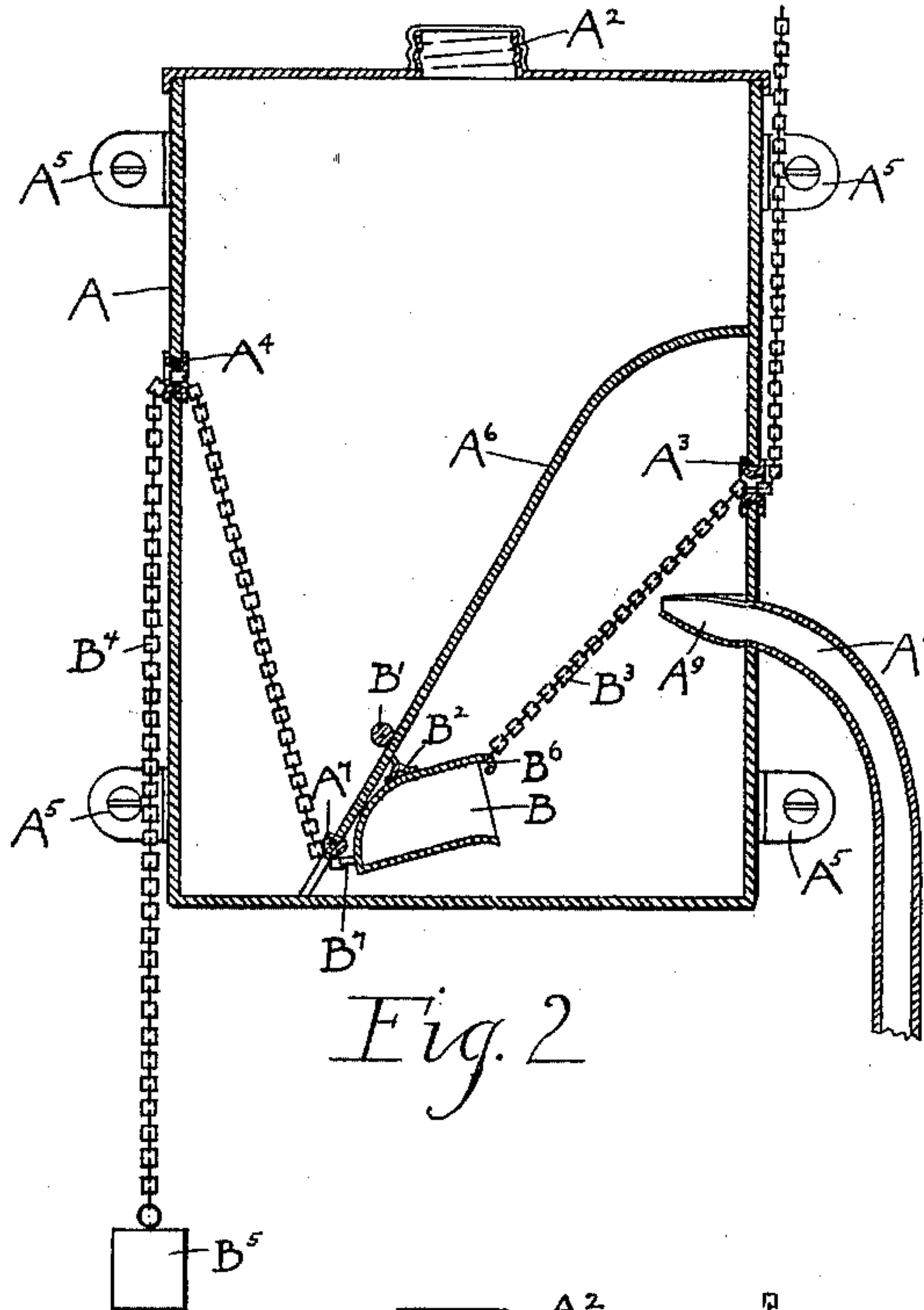


Fig. 2

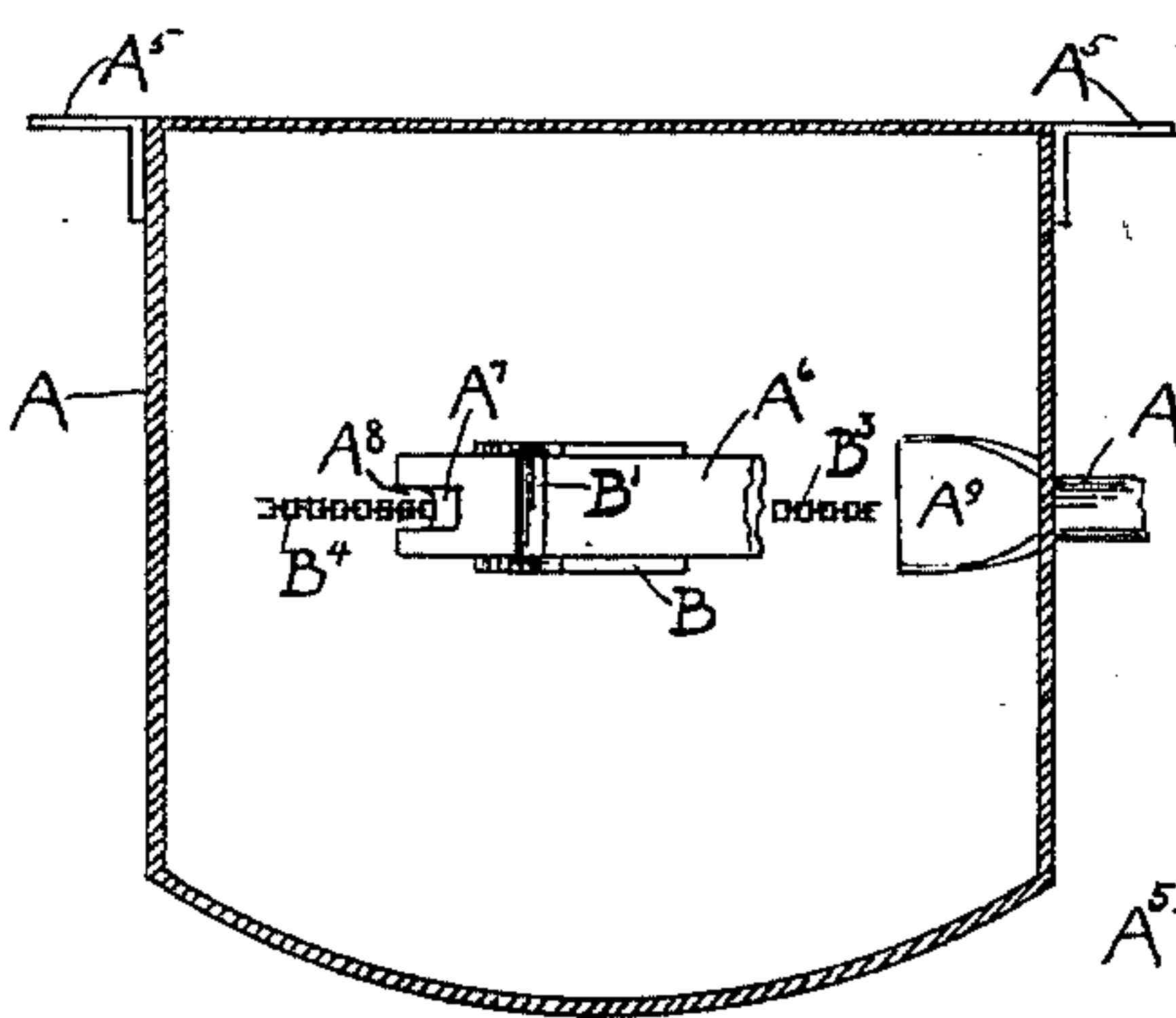


Fig. 3

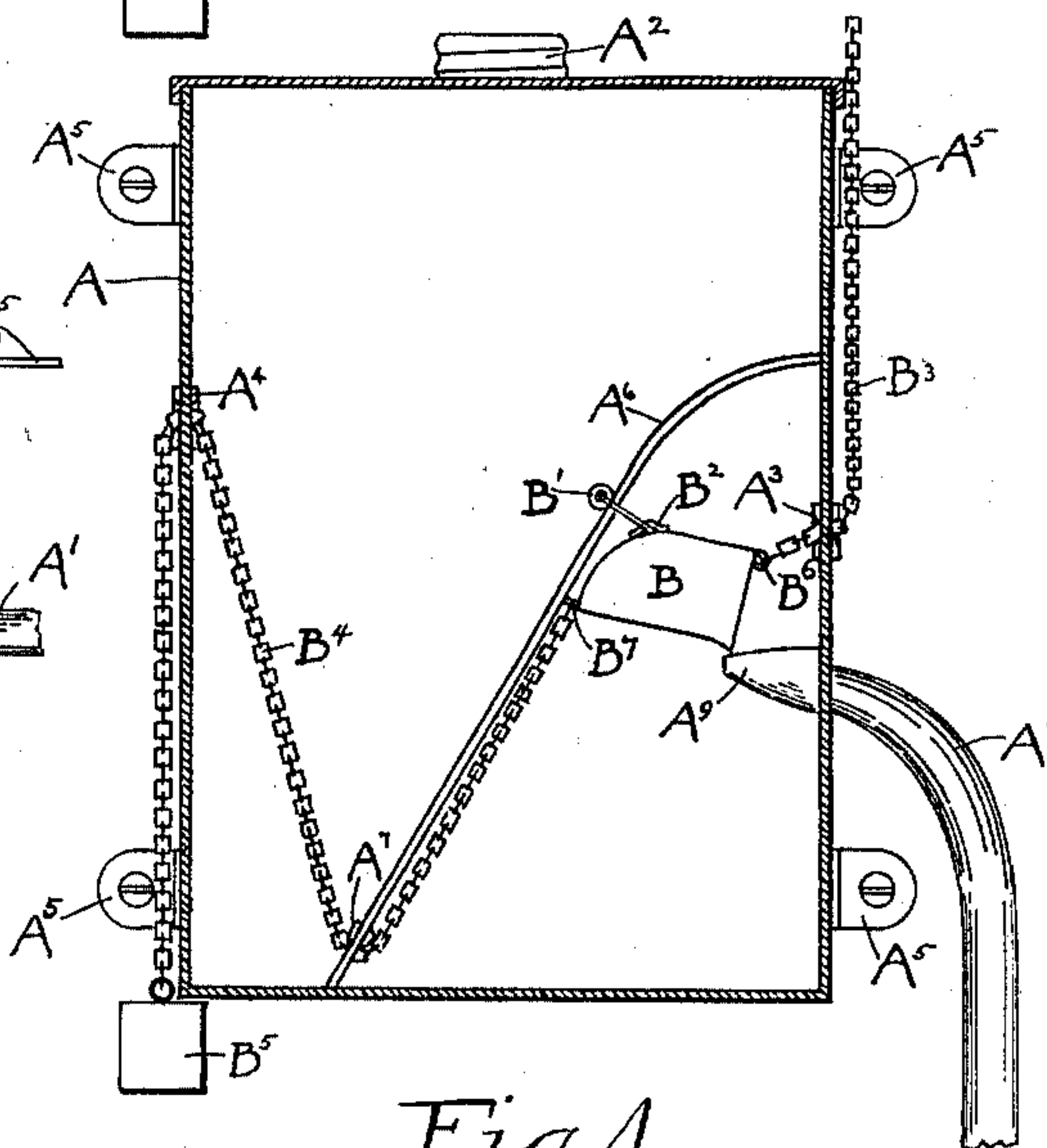


Fig. 4

WITNESSES  
Allen B. Turner  
Florence Coffman

INVENTOR  
JOSEPH MICHEL  
BY HIS ATTORNEY  
H. O. Hough.



# UNITED STATES PATENT OFFICE.

JOSEPH MICHEL, OF DENVER, COLORADO.

## AUTOMATIC DISINFECTING DEVICE.

SPECIFICATION forming part of Letters Patent No. 626,242, dated June 6, 1899.

Application filed December 14, 1898. Serial No. 699,293. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH MICHEL, a citizen of the United States, residing at Denver, in the county of Arapahoe and State of Colorado, have invented a certain new and useful Improvement in Automatic Disinfecting Devices, of which the following is a full, clear, and exact description, 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, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

My invention relates to a class of automatic disinfecting devices that are designed to be attached to a water-closet bowl and from which the disinfecting fluid is discharged automatically with the flushing of the closet. This obviates the necessity of a separate arrangement designed only to discharge the disinfecting fluid, as is the case with most devices formerly invented for the same purpose.

The objects of my invention are to provide a device that is perfectly efficient for the purposes for which it is designed, yet a simple and durable article that can be constructed at a very low cost.

I refer now to the drawings in further explaining the nature and objects of my invention, in which—

Figure 1 is an elevation of my invention with the bowl shown in central section. Fig. 2 is a vertical central cross-section of the disinfecting-chamber, showing the interior mechanism with the cup in its lower or normal position. Fig. 3 is a horizontal cross-section of the disinfecting-chamber, taken on a line above the discharge-pipe. Fig. 4 is a vertical central cross-section similar to Fig. 2, but having the cup in its upper position, as it is when discharging its contents into the discharge-pipe.

A is the can or box designed to contain the mechanism and hold the fluid. It can be constructed of tin, platinum, or any metal or material and in any shape or form desired. It is provided with a circular aperture in the top as a means for inserting the disinfecting fluid. This aperture is provided with a screw-closing device A<sup>2</sup>. In the sides of the can or

box A are holes provided with circular flanged eyelets A<sup>3</sup> and A<sup>4</sup>. The can or box is provided with four lugs A<sup>5</sup>, by means of which the device is secured to the wall or some other substantial structure adjacent to the closet. Inside of the box is an inclined metallic strip A<sup>6</sup>, having an elongated aperture A<sup>8</sup> in the lower end, provided with a flanged rounded piece A<sup>7</sup>. The end of the discharge-pipe which extends into the can or box is spoon or bowl shaped, as at A<sup>9</sup>.

B is a cup made of tin, platinum, or other material, the bottom being contoured and the sides flat. Secured to the short side from which the contour begins is a hinge B<sup>2</sup>, to which is attached the roller B<sup>1</sup>, by means of which the cup is conveyed up the inclined strip A<sup>6</sup>. The upper portion of the cup is provided with a small hook B<sup>6</sup>, to which is attached the chain B<sup>3</sup>. The lower end of the cup has extending therefrom an eye B<sup>7</sup>, to which is secured the chain B<sup>4</sup>. The chain B<sup>4</sup> is passed through the elongated aperture A<sup>8</sup>, thence upward through the circular flanged eyelet A<sup>4</sup>, and thence downward, and attached to the end thereof is the weight B<sup>5</sup>. Instead of the flanged eyelets rollers can be used, if so desired.

D is the water-tank of the closet-flushing mechanism.

D' is the valve-lever. Attached to this lever is the coil-spring C, which is a requisite to the successful operation of my invention.

D<sup>2</sup> is the discharge-pipe, connected with the water-tank D.

E is the closet-bowl, and E' the seat therefor.

It is now obvious that when my automatic disinfecting device has been secured to the wall or some other substantial fixture near the closet-bowl the connection and operation of the invention will be as follows: The chain B<sup>3</sup> is attached to the hook B<sup>6</sup> at the upper end of the cup. Thence the chain is passed out through the eyelet A<sup>3</sup>, and thence upward to the water-tank D, where it is passed through a screw-eye or small pulley device D<sup>3</sup>. It is then attached to the lower end of the coil-spring C. The spring is arranged with strength sufficient for the purpose. The chain is then allowed to hang loose from the spring down, as shown in Fig. 1. The chain B<sup>4</sup> is attached to the eye



at the lower end of the cup and is then passed through the elongated aperture A<sup>8</sup>, thence upward and through the eyelet A<sup>4</sup>, and is then allowed to hang downward, as shown in the different figures. Attached to the end thereof is the weight B<sup>5</sup>. The discharge-pipe A' extends out and downward from the can or box A and extends into the closet-bowl E. The device is operated by means of the chain B<sup>3</sup>. (Fully illustrated in Fig. 1.) It can be easily comprehended that by pulling downward on the chain B<sup>3</sup> the coil-spring C lengthens, which pulls the other end of the chain upward through the screw-eye or pulley D<sup>3</sup>. This also pulls the cup B up the inclined strip A<sup>6</sup> from the position it occupies in the fluid, which is below the line of the discharge-pipe A' in Fig. 2, to the position it occupies in Fig. 4. When the cup is drawn upward to a point opposite the eyelet or aperture A<sup>8</sup>, the hinged roller B' is directly opposite instead of below the eyelet or aperture, which, in connection with the tension of the chain B<sup>3</sup>, causes the cup to tilt, as shown in Fig. 4, when the fluid which the cup contains is emptied into the spoon or cup shaped end of the discharge-pipe A<sup>9</sup>, which extends into the can or box, and then passes downward through the discharge-pipe A' into the closet-bowl E. When the chain B<sup>3</sup> is released, the cup B is pulled down into the liquid by means of the chain B<sup>4</sup> and weight B<sup>5</sup>, so that the device is ready for use immediately and works automatically throughout, as fully illustrated in the different figures.

Having thus described the nature and objects of my invention, with the manner of con-

structing and applying the same, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, an automatic disinfecting device of the class described, consisting of the can or box A, having the discharge-pipe A', the spoon or cup shaped end A<sup>9</sup>, extending into the can, the inclined metallic strip A<sup>6</sup> secured therein, and swung upon the metallic strip the cup B, hinged to the roller B', by the hinge B<sup>2</sup>, substantially as specified.

2. The combination, an automatic disinfecting device of the class described, consisting of the can or box having the discharge-pipe, the spoon or cup shaped end extending into the can, the inclined metallic strip, and swung upon the metallic strip the cup; having attached to the upper end of the cup the chain B<sup>3</sup>, and attached to the lower end of the cup the chain B<sup>4</sup>, and the weight B<sup>5</sup>, as and for the uses and purposes herein specified.

3. The combination, an automatic disinfecting device of the class described, consisting of the can or box having the discharge-pipe, the spoon or cup shaped end extending into the can, the inclined metallic strip, and swung upon the metallic strip, the cup, the chain and weight, and the coil-spring C, substantially as and for the purposes herein specified and set forth.

In testimony that I claim the foregoing as my own I hereunto subscribe my name in the presence of two witnesses.

JOSEPH MICHEL.

Witnesses:

RAY PELTON,  
FLORENCE COFFMAN.