J. G. GOODHUE.

DISINFECTING APPARATUS.

APPLICATION FILED JUNE 6, 1912. RENEWED NOV. 11, 1918.

1,309,029. Patented July 8, 1919.

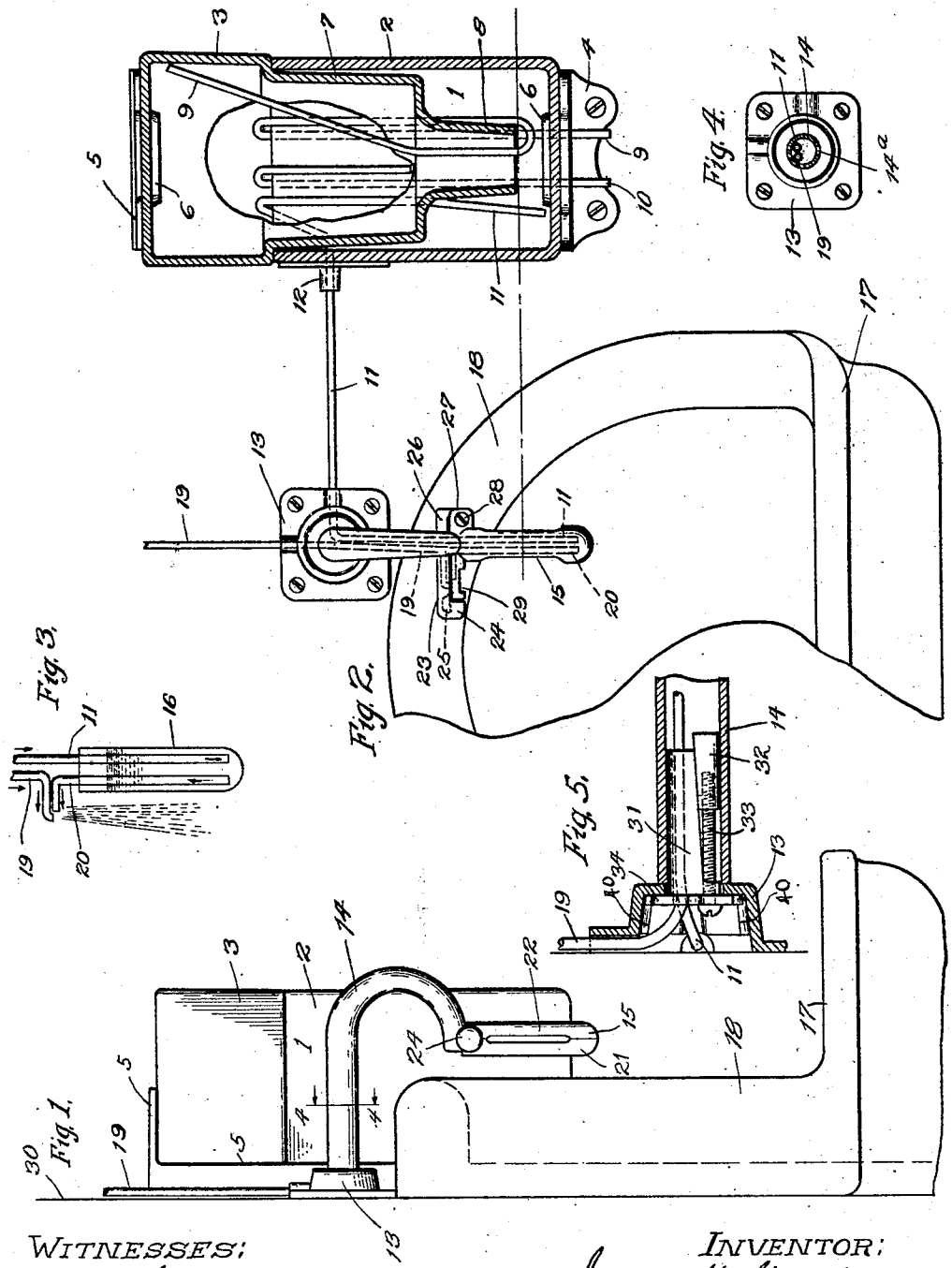


Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

WITNESSES:
L. B. Graham
A. S. Dennison

INVENTOR:
By Julian G. Goodhue
A. Miller Bergfield.
Atty.

THE COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JULIAN G. GOODHUE, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE UNIVERSAL UTILITIES COMPANY OF ILLINOIS, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

DISINFECTING APPARATUS.

1,309,029. Specification of Letters Patent. Patented July 8, 1919.

Application filed June 6, 1912, Serial No. 701,971. Renewed November 11, 1918. Serial No. 262,069.

To all whom it may concern:

Be it known that I, JULIAN G. GOODHUE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Disinfecting Apparatus, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to disinfecting apparatus, and has as its principal object the provision of special devices whereby such a system may be installed and maintained with a minimum of expense.

A further object of my invention is to promote the efficiency of a disinfecting system.

A further object of my invention resides in the particular arrangement and combination of parts hereinafter described.

Referring to the accompanying drawings, Figure 1 is a side elevation of my improved disinfecting system;

Fig. 2 is a front elevation of the system shown in Fig. 1, parts being broken away;

Fig. 3 is a detail view of the spraying apparatus illustrating the arrangement of tubes;

Fig. 4 is a detail cross section on the line 4—4 of Fig. 1;

Fig. 5 is a central, vertical, sectional view of the parts in Fig. 4.

Referring more particularly to the drawings, 1 is a reservoir apparatus comprising a lower receptacle 2, and an upper receptacle 3. The member 2 rests on a bracket 4 and has a groove in its bottom which is engaged by a corresponding projection (not shown) on the upper face of the bracket. Likewise the member 3 is engaged by a bracket 5, the member 3 having a groove in its top face which engages a ridge (not shown) carried on the lower face of the bracket 5. Projections 6—6 on the members 2 and 3 indicate the position of the grooves, the projections 6—6 being on the inner surfaces while the grooves are in the outer surfaces of the members 2 and 3. Receptacle 2 has an open top which receives the depending portion 7 of the receptacle 3. Portion 7 also has a spout or nozzle 8, the lower edge of which determines the liquid level in the reservoir 2 in a manner well understood in the disinfecting art.

Receptacle 3 is provided with a groove in its rear face, through which various tubes enter the reservoirs. Tube 9 passes up through a hole in the bracket 4, down through the groove in the member 3 just mentioned into the receptacle 2 and up through the spout 8 to the upper portion of the receptacle 3. This tube 9 is used for withdrawing air from the upper part of the receptacle 3 during the operation of filling the reservoirs with liquid. Tube 10 also leads up through a hole in the bracket 4 into the groove in the member 3 and delivers downwardly into the receptacle 2. This tube is used for delivering liquid during the filling operation. Tube 11 leads from the lower part of receptacle 2 out through the groove previously mentioned through a special fitting 12 to a combined fitting and bracket 13, thence into a goose necked conduit 14, then into a spraying or atomizing device. The spraying device has a holder 15 which contains an inner glass tube 16 (see Fig. 3) which retains liquid delivered by the tube 11. This tube acts as a siphon for delivering liquid from the receptacle 2 into the tube 16 of the sprayer and maintains the same level in 16 as is in 2.

As shown the goose necked conduit 14 is suspended from the member 13 which is placed on the wall just above a lavatory bowl or fitting 17. The bowl 17 is provided with a flange 18 which the member 14 is designed to bend around so as to leave space between the outer edge of the flange and the inner surface of the conduit. As shown in Fig. 4 also the conduit 14 is provided with a slot 14^a, to facilitate placing the interior tubes in proper position.

In addition to the tube 11 the spraying apparatus requires a tube 19 for delivering a blast of air. Preferably tube 19 is connected with a door check and delivers a blast of air which causes a spray each time the door to which the check is applied is opened and closed. Tube 20 leads from the lower part of the receptacle 16 to the end of the tube 19, the tube 19 being bent so as to deliver its blast of air across the open mouth of the tube 20, so that whenever a blast of air is delivered from the tube 19, liquid is drawn up through the tube 20 by an aspirating action and sprayed into the air.

The holder 15 comprises two outer por-

tions 21 and 22, which are similar except that they are right and left respectively. The member 14 carries at its lower end a horizontally extending portion 23 which is open along its lower face and is hollowed out to accommodate the tubes 19 and 20. The left hand end of the portion 23 is capped over as shown at 24. Each half, 21 and 22, of the spraying device 15 is provided with a lug 25 which projects into the cap portion 24 and sustains the left hand end of the portions 21 and 22. The right hand end of the member 23 is provided with a hook shaped lug 26 while each of the members 21 and 22 has at its right hand end a lug 27. When the lugs 25 are inserted into the cap 24, as shown in Fig. 2, a screw 28 may be passed through the lugs 27 above the lower face of the hook shaped lug 26, holding the two parts 21 and 22 firmly together and also securing them to the portion 23. Each of the members 21 and 22 are provided with a notch 29 through which the spray may be delivered downwardly into the bowl.

It will be understood that the upper bracket member 5 has vertically depending arms as shown in Fig. 1, one on each side of the reservoir apparatus. These arms rest against the face of a wall such as 30 in Fig. 1, and in order to lead out the tube 11 along the face of the wall a notch or recess is cut in one of the arms of the member 5, while the fitting 12 is provided with lugs which engage the under edge of said recess, thus holding the pipe 11 securely in place. The special construction of the brackets, reservoirs, and of the members 12 and 13 being described and claimed in my copending application Serial No. 746,737, filed, February 5, 1913, for bracket or supporting device, these features will not be specially described or claimed herein.

The details of my arrangement for attaching pipe 14 to the fitting 13 are shown in Fig. 5. In this figure, 31 is a wedge of semi-cylindrical cross section, the part 31 being integral with a flange portion 34 which engages the grooves 35 on the interior surface of the fitting 13. A screw 33 which fits in a notch in the flange 34 and has its head engaging the inner face of the flange, serves to force the complement wedge member 32 against the wedge 31 so that both 31 and 32 are forced against the inner surface of the pipe 14. The pipe is thus held firmly in place and may be installed with a minimum of trouble. The pipes 11 and 19 pass through the member 31 from the fitting 13 to the pipe 14, the member 31 being hollowed out to receive them.

Having thus described my invention, what I claim is:

1. In a disinfecting system in combination, a bracket attached to a wall, a goose necked conduit carried by said bracket having its bend in a vertical plane, and a spraying apparatus suspended from said conduit.

2. In a disinfecting system in combination, a bent pipe or conduit having its bend mounted in a substantially vertical plane, and having a horizontal portion attached to the lower end of the bend, said horizontal portion being hollowed out and open along its lower face, said horizontal portion also having a cap at one end and a hook shaped lug at the other, and two similar castings provided with projecting lugs at one end for insertion into said cap and with apertured lugs at the other end and a screw for holding together said apertured lugs and for engaging said hook shaped lug to sustain said castings in position, said castings having a depending portion containing a reservoir and spraying pipes associated with said reservoir.

3. In a disinfecting system, the combination of a lavatory bowl having a projecting flange, a bent conduit mounted above said bowl and having a portion which extends downwardly and thence inwardly toward said flange, and an atomizing device suspended from said conduit.

4. A bracket holder comprising a horizontal part and means for attaching the same detachably to a wall, said bracket forming a conduit extending from the wall, and a downwardly extending part having its lower end provided with a T-shaped end portion and an atomizer secured to said last mentioned portion.

5. The combination of a wall clip, a bracket holder arranged to be detachably secured to the wall by said clip and having its end provided with a cross member having a socket, and an atomizer having a portion adapted to fit into said socket to detachably secure said atomizer in position.

6. A bracket member 14 having a horizontal portion, and also having a curved vertically extending portion, and an atomizer suspended from said curved portion, said atomizer comprising two detachably connected parts which when together form a hollow cylindric structure to accommodate a reservoir 16.

7. The combination of a wall clip, a bracket holder having an end constructed to engage the clip and having its opposite end provided with an atomizer, said bracket being tubular and communicating with said atomizer.

In witness whereof, I hereunto subscribe my name this 22nd day of May, A. D. 1912.

JULIAN G. GOODHUE.

Witnesses:
A. L. JONES,
O. M. WENNICH.

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