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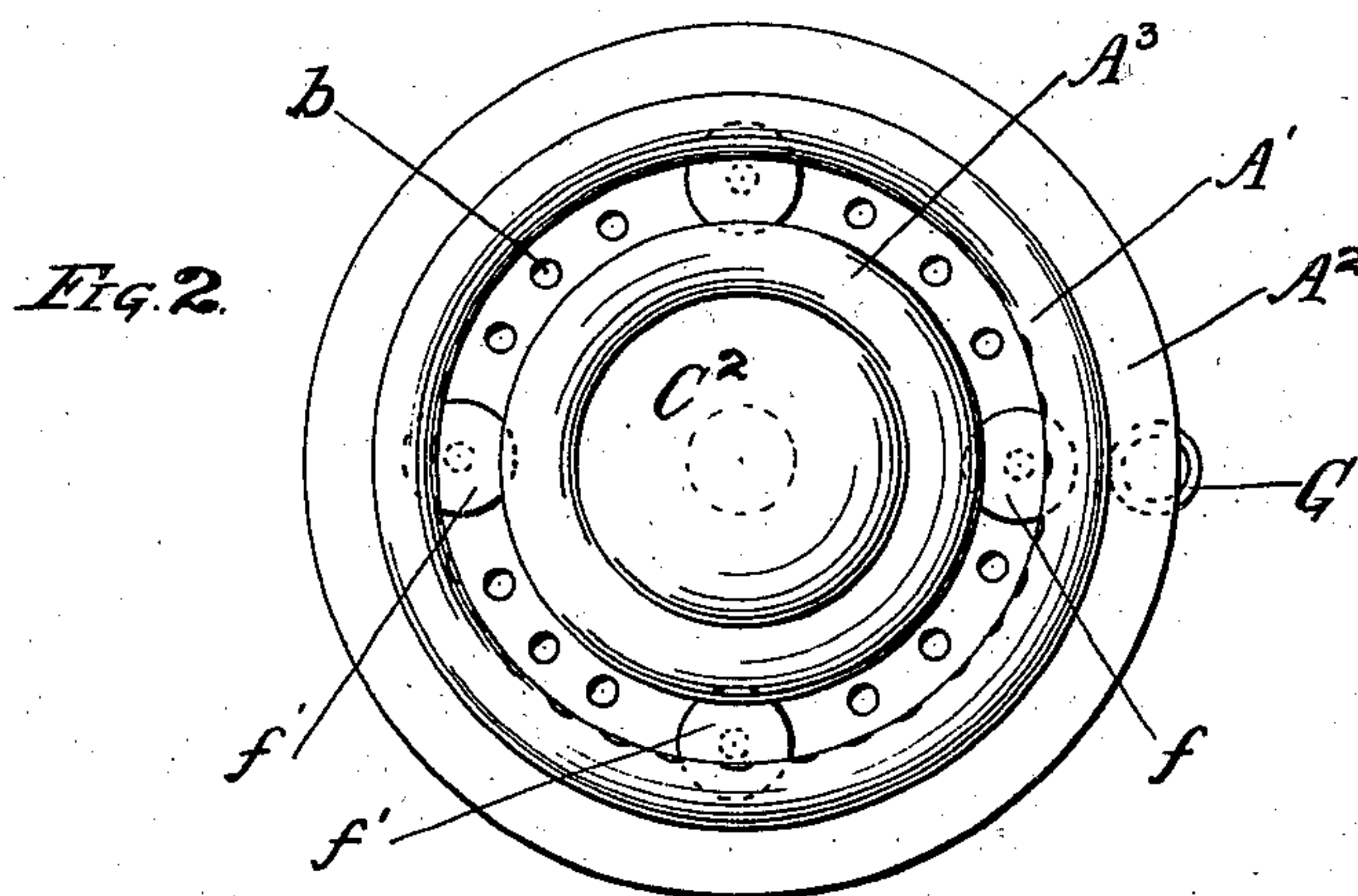
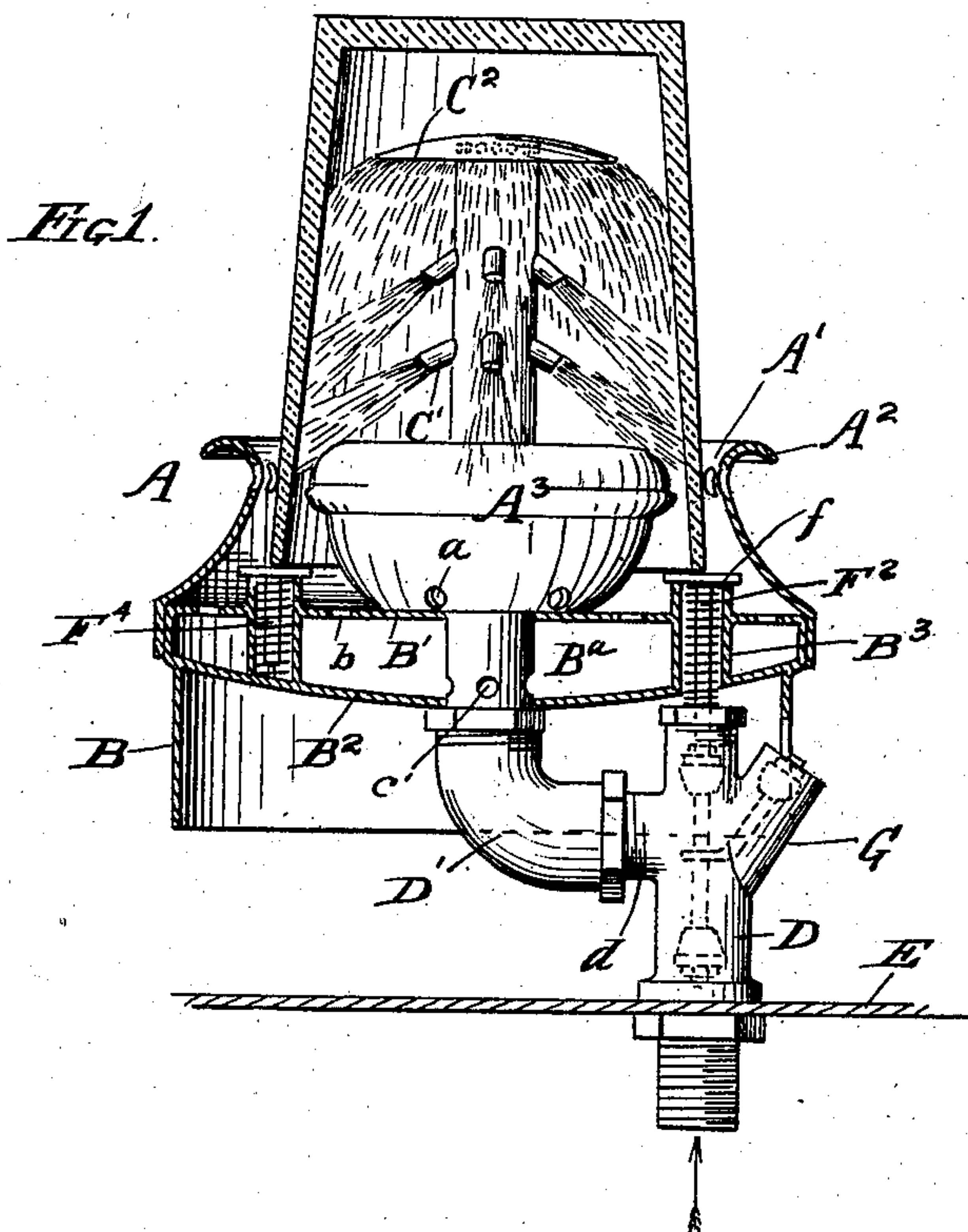
Patented Sept. 9, 1902.

H. G. SWEENEY.
GLASS RINSING DEVICE.

(Application filed July 13, 1901.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES:

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William H. Hall

INVENTOR.

Henry G. Sweeney

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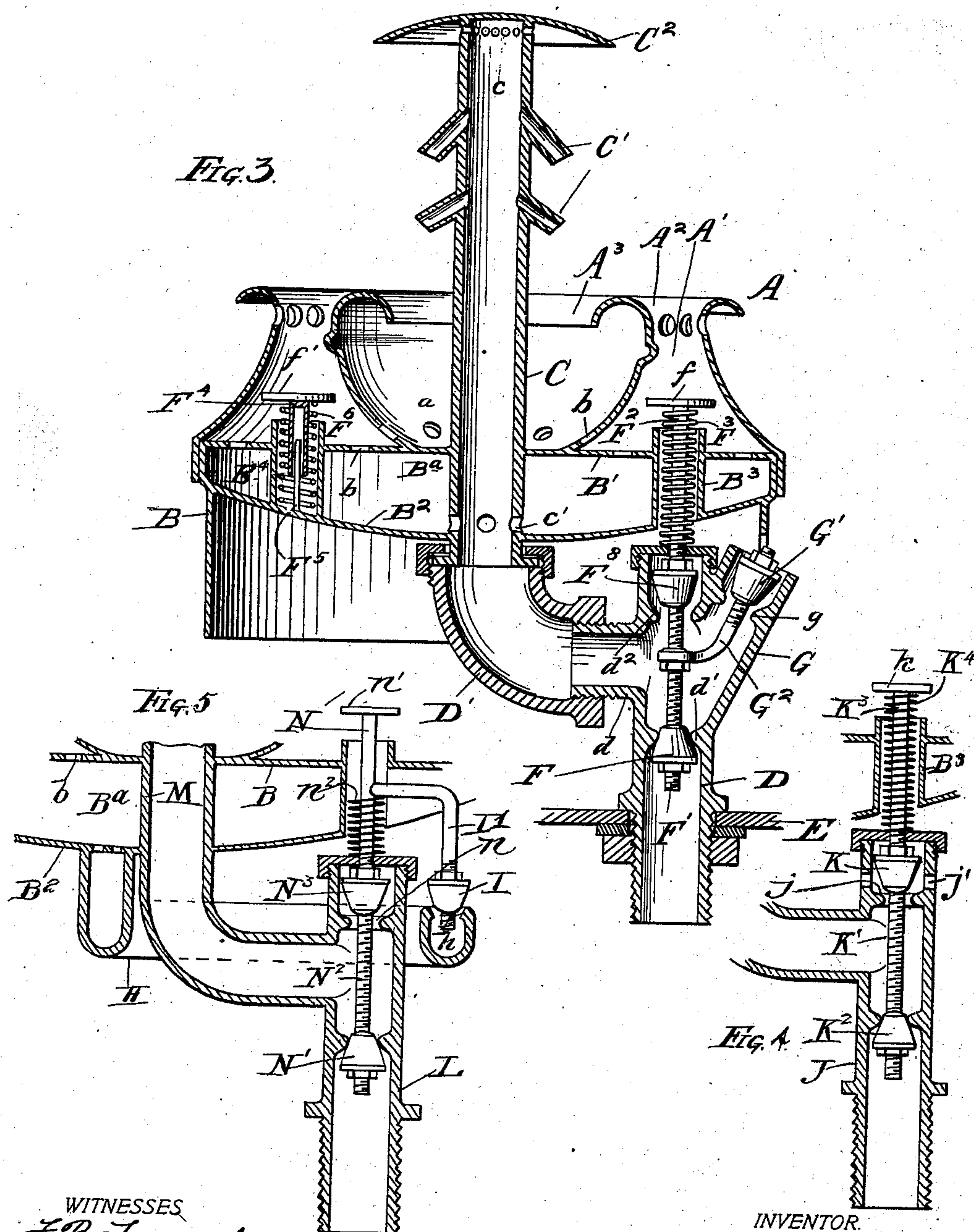
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UNITED STATES PATENT OFFICE.

HENRY G. SWEENEY, OF CHICAGO, ILLINOIS, ASSIGNOR TO FRANK G. KAMMERER, OF CHICAGO, ILLINOIS.

GLASS-RINSING DEVICE.

SPECIFICATION forming part of Letters Patent No. 708,844, dated September 9, 1902.

Application filed July 13, 1901. Serial No. 68,138. (No model.)

To all whom it may concern:

Be it known that I, HENRY G. SWEENEY, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Glass-Rinsing Devices; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to a novel device for washing or rinsing drinking-glasses, and is adapted more especially for keeping clean and in proper condition drinking-glasses for public fountains and like drinking-places.

The invention consists in the matters hereinafter set forth, and more particularly pointed out in the appended claims.

In the drawings, Figure 1 is a view, partially in elevation and partially in vertical section, of a device embodying my improvements and showing a drinking-glass in position to be cleaned thereby. Fig. 2 is a plan view of the device with the drinking-glass removed. Fig. 3 is an enlarged central vertical section of the device. Fig. 4 is a central vertical section of a modified form of the device. Fig. 5 is a central vertical section of still another modification.

First describing the construction shown in Figs. 1 to 3, inclusive, A designates as a whole an open-topped receptacle provided with an upwardly-opening annular groove or channel A', constructed to receive the lower margin of a drinking-glass, as shown in Fig. 1, and formed between inner and outer shells A² A³. The inner shell is formed on or attached to a horizontal plate B', constituting the upper wall of a casing or shell B, located below and fitting inside the lower open end of the shell A². Said casing or shell B is provided below said upper wall B' with a centrally-depressed diaphragm B², between which and the wall B' is formed a chamber B^a.

C designates a stand-pipe which passes upwardly through the diaphragm B² and plate B' and extends at its upper end through and above the central shell A³. Said pipe is provided in its part above said shell A³ with a plurality of discharge nozzles or spouts C',

preferably arranged radially and downwardly inclined. The upper end of the pipe is closed and is provided immediately beneath its closed end with a plurality of discharge-openings c. Said upper end wall of the stand-pipe is extended outwardly to form an annular deflecting-shield C², which is curved downwardly at its margin to deflect downwardly the water issuing from the openings c.

D designates a water-supply-pipe fitting which is connected with the stand-pipe by an elbow D', said elbow being connected at its upper end by a suitable coupling with the lower end of the stand-pipe and at its lower end with a nipple d, which projects laterally from the fitting. Said fitting projects downwardly through a plate or board E, which may constitute the bottom of a tank or sink in which the device is located and which receives the overflow-water from the device. Said supply-pipe fitting is provided with an inwardly-directed annular flange d', constituting a valve-seat which is adapted for engagement by a reciprocating conical valve-plug F, attached to a stem F'. Said stem is extended upwardly from the valve, passes out of the fitting D, and is attached to or formed integral at its upper end with a stem F², the upper end of which extends into the lower part of the glass-receiving groove or channel A'. To the upper end of said stem is attached a horizontal disk f. Said stem is contained principally within a sleeve B³, extending between the diaphragm B² and plate B', and which may, as shown, project upwardly into said glass-receiving groove A'. Interposed between said disk f at the upper end of the stem F² and the fitting D and surrounding the said stem is a spiral expansively-acting spring F³, which acts to hold the disk and stem elevated and the valve F in contact with its seat. Water is supplied to the fitting D below the valve under pressure, so that when the valve is depressed the water passes upwardly through the stand-pipe and is discharged through the nozzles C' and openings c. The disk f on the stem F² is so located with respect to the glass-receiving groove that the margin of the drinking-glass when said glass is placed over the upper end of the stand-pipe and with its margin in said groove

comes into contact with the disk, and downward pressure on the glass acts to depress the disk and its stem and to open the valve and admit water to the interior of the glass in the manner shown in Fig. 1. Desirably, also, a plurality of yielding supports are provided for the glass, which are disposed in circular order about the bottom of the glass-receiving groove and in the same horizontal plane with the disk f , as shown in Fig. 2. Said yielding supports each consist of a horizontal disk affixed to the upper end of a hollow post F^4 , passing downwardly through the plate B' , said post having sliding or telescopic engagement at its lower end with a vertical guide-stem F^5 , projecting upwardly from the diaphragm B^2 .

F^6 designates a spiral expansively-acting spring which is interposed between the diaphragm and the disk and acts to normally hold the disk at the upper limit of its movement. Said plunger and spring of each support are inclosed by a sleeve B^4 , extending upwardly from the diaphragm B^2 . The springs F^3 F^6 are made of sufficient strength to support the weight of the glass without yielding, and when downward pressure is applied to the glass it is forced down uniformly on all sides thereof and maintained in proper vertical position.

The shell A^3 and plate B' are provided with apertures a b , through which water falling into the shells A^2 A^3 may pass to the chamber B^3 . When water is admitted to the interior of the glass in the manner shown in Fig. 1, said water fills the chamber B^3 and rises upwardly around the margin of the glass in the groove A' . The jets of water issuing from the stand-pipe strike with considerable force against the inner surface of the glass and effectively wash or rinse the same, while the water rising around the rim of the glass within the groove or channel A' acts to rinse the marginal part of the glass.

In the construction shown in Figs. 1 to 3 the water after the rinsing operation returns through and escapes from the fitting D , the stand-pipe C being provided at its lower end just above the diaphragm B^2 with openings c' , through which the waste water may pass from the chamber B^3 into the stand-pipe. Said fitting for this purpose is provided with an open branch G , closed by a valve G' , said valve engaging a seat formed on an inwardly-extending annular flange g in said branch. The stem G^2 of the valve G' is shown as attached to and movable with the stem F' of the inlet-valve F , said stem G^2 extending downwardly through the branch G' and being apertured at its end to fit over the screw-threaded stem F' . The valves F and G' are so disposed with respect to each other that when one valve is opened the other valve is closed, and vice versa. In the operation of the device the glass is set into the groove A' upon the yielding supports f and f' therein. Downward pressure on the glass acts through

the plunger F^2 and valve-stem F' to open the valve F , and the same movement of the parts actuated closes the valve G' . Upon opening the valve F the water rises into the stand-pipe and issues therefrom in the manner shown in Fig. 1; the flow of the water continuing until the rim of the glass is submerged. Escape of water from the fitting D is prevented by the closing of the valve G' . When pressure upon the glass is relieved, the valve F is closed by its spring F^3 . The valve G' is by the same spring opened. The water in the device is therefore allowed to escape through the branch G . The device shown may afford a support for the drinking-glass when not in use, and when a person desires to use the glass a slight pressure thereon will be all that is required for cleaning the glass. In order to prevent water being forced upwardly through the fitting D around the plunger F^2 at the time the valve F is open, the valve F^3 is interposed between the chamber of said fitting and the opening at the upper end of the fitting through which the plunger passes. Said valve is affixed to the stem F' and engages a seat d^2 in said fitting, through which the plunger passes.

In the modification shown in Fig. 4 the branch pipe G and valve-closure G' are omitted, and the fitting J is provided with a valve-closure K , attached to the stem K' in the same position as the valve-closure F^3 (shown in Figs. 1, 2, and 3) and which acts against a downwardly-facing valve-seat j , while the fitting is provided above the seat j with holes j' , which constitute the drainage-discharge apertures of the fitting. In this construction the drainage-valve K will be open when the inlet-valve K^2 is closed, and vice versa. The construction shown in Fig. 4 has the advantage of being more simple in construction than that shown in Figs. 1, 2, and 3. The extension K^3 of said valve-stem extends into the annular glass-receiving chamber and is provided with a disk k and a spring K^4 , corresponding to the spring F^3 of the previously-described construction.

In the construction shown in Fig. 5 the water is drawn off from the chamber B^3 through a horizontal drain-pipe H , independent of the stand-pipe and supply-fitting L . Said drain-pipe H is provided at its inner end with an upturned portion which communicates with the chamber B^3 at one side of the stand-pipe M , as clearly shown in said Fig. 5. The outer end of said drain-pipe H , outside the supply-fitting L , is turned laterally to bring the end thereof in line with said fitting, as shown in Fig. 5, and is provided at its outer end and in its upper part with a drainage-opening in which is formed a valve-seat h . I designates a conical valve-plug adapted for engagement with said seat to close said pipe. Said valve-plug is provided with an angular stem I' , which is attached to the plunger N above the supply-fitting L , and the relation to the valve I is such with respect to the supply-valve N'

that the drainage-valve I is closed when the supply-valve N' is opened, and vice versa. The stem N² of the valve N' is connected in alinement with the plunger N and is provided with a valve N³, which prevents the water passing upwardly through the upper end of the fitting when said valve engages its seat *n* in the fitting and is adapted to be closed when the valve N' is opened, and vice versa, these parts being similar to the corresponding construction shown in Figs. 1, 2, and 3. The extension or plunger N is provided at its upper end with a disk *n'* and with an actuating-spring *n*², said spring acting against the arms I' to normally hold the stem N² in its uppermost position and the valve N' closed. The casing proper (shown in both Figs. 4 and 5) is like the same parts shown in Figs. 1 to 3, inclusive, and bears like reference-letters.

It will be obvious that other changes may be made in the details of construction without departing from the spirit of my invention, and I do not wish to be limited to such details except as made the subject of specific claims.

I claim as my invention—

1. A device for rinsing glasses comprising a receptacle having an upwardly-opening annular recess formed between two circular parts or walls for receiving the rim of a glass, a water-supply passage communicating with said recess, a valve for controlling the flow of water to said recess, and actuating means for said valve located in the recess in position to be engaged by the rim of the glass inserted in said recess.

2. A device for rinsing glasses comprising a receptacle having an upwardly-opening narrow annular recess formed between two circular parts or walls for receiving the rim of a glass, a water-supply pipe, a valve controlling said supply-pipe, and a yielding valve-actuating member located in said recess and adapted to be moved or actuated by the pressure thereon of the rim of a glass inserted in said recess.

3. A device for rinsing glasses comprising a receptacle provided with an annular upwardly-opening recess formed between two circular parts or walls, a water-supply passage, a discharge-passage, separate valves controlling said supply and discharge passages and a yielding valve-actuating member located in said recess adapted to be moved by contact of the edge of the glass therewith, said valve-actuating member being connected with and adapted to actuate both of said valves.

4. A device for rinsing glasses comprising a receptacle having an upwardly-opening annular recess for receiving the rim of a glass, a water-supply pipe, a valve in said supply-pipe, a spring-supported vertically-movable valve-actuating member located in said groove and one or more spring-supporting vertically-movable supports located in said

recess in the same horizontal plane with said valve-actuating member.

5. A device for rinsing drinking-glasses comprising a receptacle provided with an annular, upwardly-opening recess for the edge of a glass, a water-supply passage, a valve controlling the supply of water from said supply-passage, a drain-passage communicating with said receptacle, a valve for closing said drain-passage and means operated by the pressure of the edge of the glass, when inserted within said recess, for operating both of said valves, the supply-passage valve and the drain-passage valve being connected in such manner that when one of the valves is opened the other is closed and vice versa.

6. A device for rinsing drinking-glasses comprising a receptacle having an annular upwardly-opening recess formed between two circular parts or walls to receive the edge of a glass, a stand-pipe rising centrally above said recess and provided with discharge-passages, a supply-pipe communicating with said recess and with said stand-pipe, a valve controlling the said supply-pipe and a yielding valve-actuating member located in said recess in position to be moved by the pressure of the edge of the glass thereon.

7. A device for rinsing drinking-glasses comprising a receptacle, a water-supply passage, a drainage-opening communicating with said passage, an inlet-valve for controlling said supply-passage, a valve for said drainage-opening connected with said inlet-valve, and a yielding actuating member for said valves located in the receptacle in position for engagement with the edge of a glass inserted therein.

8. A device for rinsing drinking-glasses comprising an upwardly-opening recess adapted to receive the edge of a glass, a supply-passage communicating with said recess, a downwardly-opening valve for controlling the flow of water through said supply-passage, a stem connected with said valve and provided at its upper end with a support for the glass located within said recess, and a spring applied to close said valve and hold said support in its elevated position.

9. A device for rinsing glasses comprising a receptacle provided with an upwardly-opening annular recess for receiving the rim of the glass and a central stand-pipe, a water-supply passage communicating with said recess and the stand-pipe, a valve controlling the flow of water to said recess and stand-pipe, a stem connected with said valve and extending upwardly into said recess, a support for the glass attached to said stem, and a spring applied to close said valve.

10. A device for rinsing glasses comprising a receptacle provided with an upwardly-opening annular recess for receiving the rim of a glass, a supply-passage communicating with said recess, a valve for controlling the flow of water to said recess, and a plurality of yielding supports located in position to be engaged

by the rim of a glass, one of said supports being connected with and adapted to actuate said valve.

11. A device for rinsing glasses comprising
5 a receptacle provided with an upwardly-opening annular recess for receiving the rim of a glass, a water-supply passage communicating with said annular recess, a valve for controlling the flow of water through said passage,
10 a drainage-passage also communicating with the said recess, a valve for closing said drainage-passage, and a plurality of vertically-movable supports located in said recess in position for the engagement therewith of the rim of a
15 glass, one of said supports being connected with and adapted to actuate both of said valves.

12. A device for rinsing glasses comprising a receptacle provided with an upwardly-opening annular groove for receiving the rim of a glass, a water-supply passage communicating with said annular groove, a downwardly-opening valve for controlling the flow of water through said passage, a vertical valve-stem
25 which rises into said recess, a support for the glass connected with said valve-stem, a spring applied to hold the valve closed and the said support in its elevated position, a drainage-passage communicating with said receptacle
30 and a valve for said drainage-passage which is connected with and operated by the said valve-stem.

13. A device for rinsing drinking-glasses comprising a receptacle, a water-supply passage communicating with a drainage-opening, a valve for controlling the water-supply passage, a movable valve-stem actuating said valve and rising into said groove, a spring acting on said valve-stem to hold the said
40 valve closed, and a second valve movable with said valve-stem acting to close the drainage-opening.

14. A device for rinsing glasses comprising a receptacle having an annular recess adapted
45 to receive the rim of a glass, a supply-passage through which water is conveyed to said annular recess, a valve controlling said supply-passage, a drainage-passage communicating with the said annular recess, valves controlling said water-supply and drainage passages,
50 said valves being so connected that when one is opened the other is closed and vice versa, means for operating said valve embracing a movable part within the said annular recess
55 adapted to be actuated by the pressure of the rim of the glass inserted within the said recess, and means for directing water both to the inner and outer sides of the rim of the glass when the valve of the water-supply passage is open.
60

15. A device for rinsing glasses comprising a receptacle, a central stand-pipe having exit-openings through which water is delivered for rinsing a glass, a water-supply passage, a valve for controlling said water-supply pas- 65 sage, and a downwardly-yielding support for the glass located in the receptacle in position to be engaged by the rim of a glass, said yielding support being connected with and actuating the said valve. 70

16. A device for rinsing glasses comprising a receptacle having a central stand-pipe provided with discharge-openings, a water-supply passage communicating with the said receptacle and with the stand-pipe, a valve in 75 said supply-passage and a plurality of yielding supports located in the receptacle around the stand-pipe in position for contact of the rim of the glass therewith, one of said supports being connected with and adapted to ac- 80 tuate the valve.

17. A device for rinsing glasses comprising a water-receptacle, a stand-pipe thereon provided with discharge-openings, a water-supply pipe, a valve controlling said supply-pipe 85 and a yielding valve-actuating member located in position for the action thereon of a glass placed over the stand-pipe.

18. A device for rinsing glasses comprising a water-receptacle, a stand-pipe, a water-sup- 90 ply passage delivering water to the stand-pipe, a drainage-opening communicating with the bottom of the receptacle, valves for controlling the water-supply passage and drainage-opening, and a yielding valve-actuating 95 member located in position for contact of a glass therewith, and connected with and operating both of said valves.

19. A device for rinsing glasses comprising a water-receptacle, a stand-pipe, a water-sup- 100 ply passage supplying water to the stand-pipe, said water-supply passage having a drainage-inlet opening communicating with the bottom of the receptacle and a drainage-outlet opening, a valve in the inlet-passage 105 for controlling the supply of water, a valve in the drainage-outlet opening, and a yielding valve-actuating member adapted for contact therewith of a glass, the said actuating member being connected with and adapted to 110 actuate both of said valves.

In testimony that I claim the foregoing as my invention I affix my signature, in presence of two witnesses, this 10th day of July, A. D. 1901.

HENRY G. SWEENEY.

Witnesses:

WILLIAM L. HALL,
GEORGE R. WILKINS.