

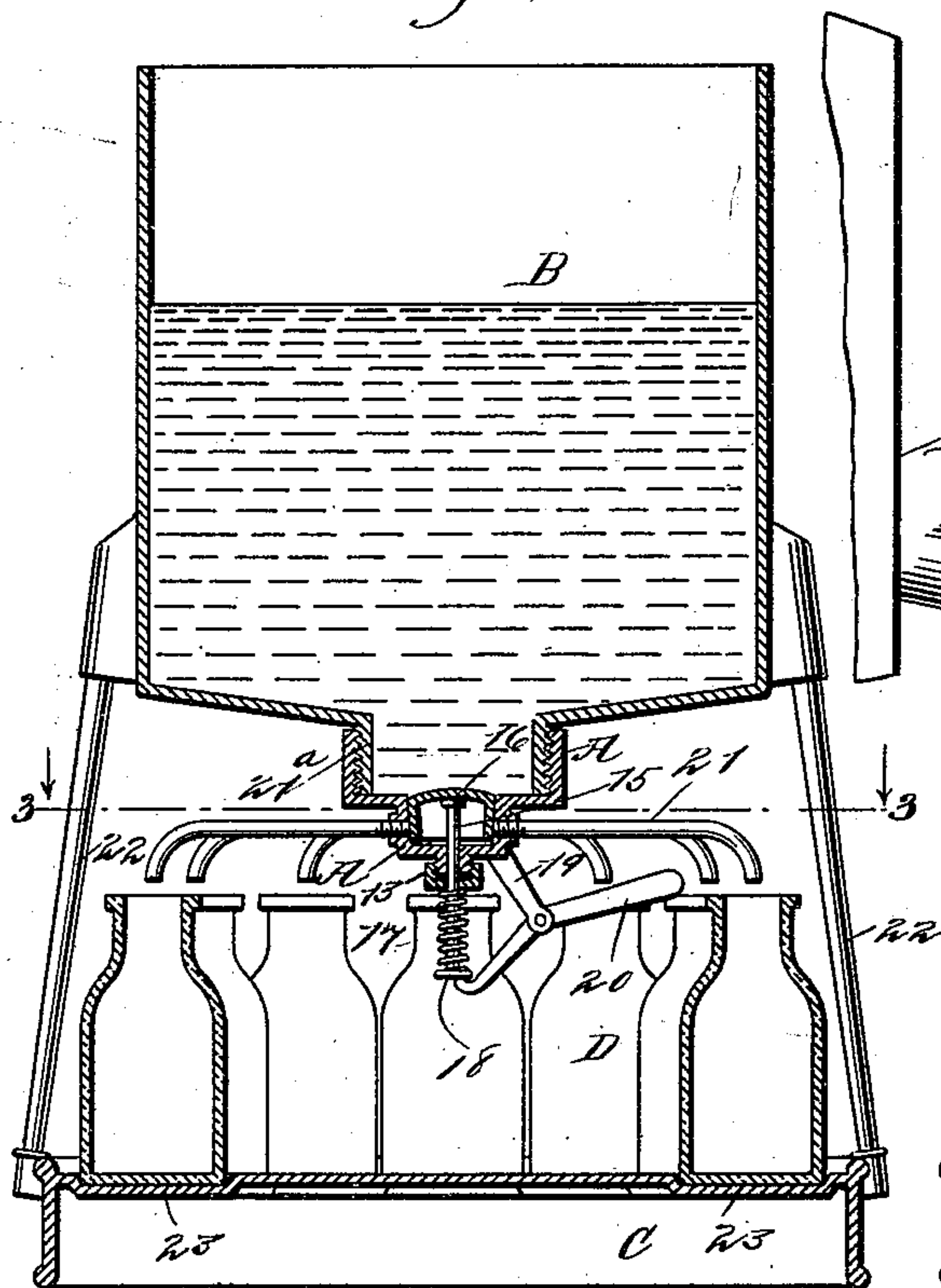
(No Model.)

J. IREDALE.  
BOTTLE FILLING DEVICE.

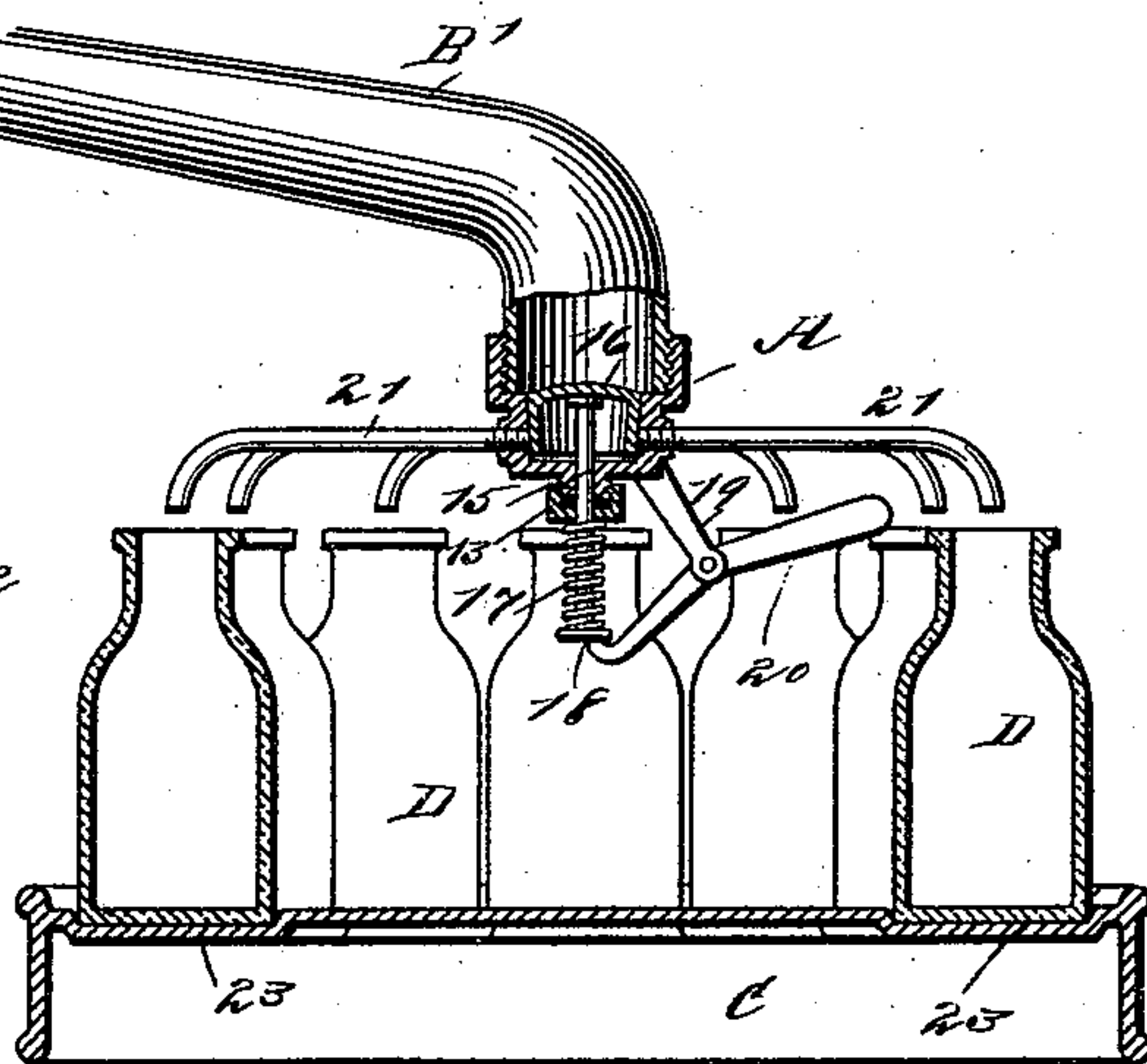
No. 553,734.

Patented Jan. 28, 1896.

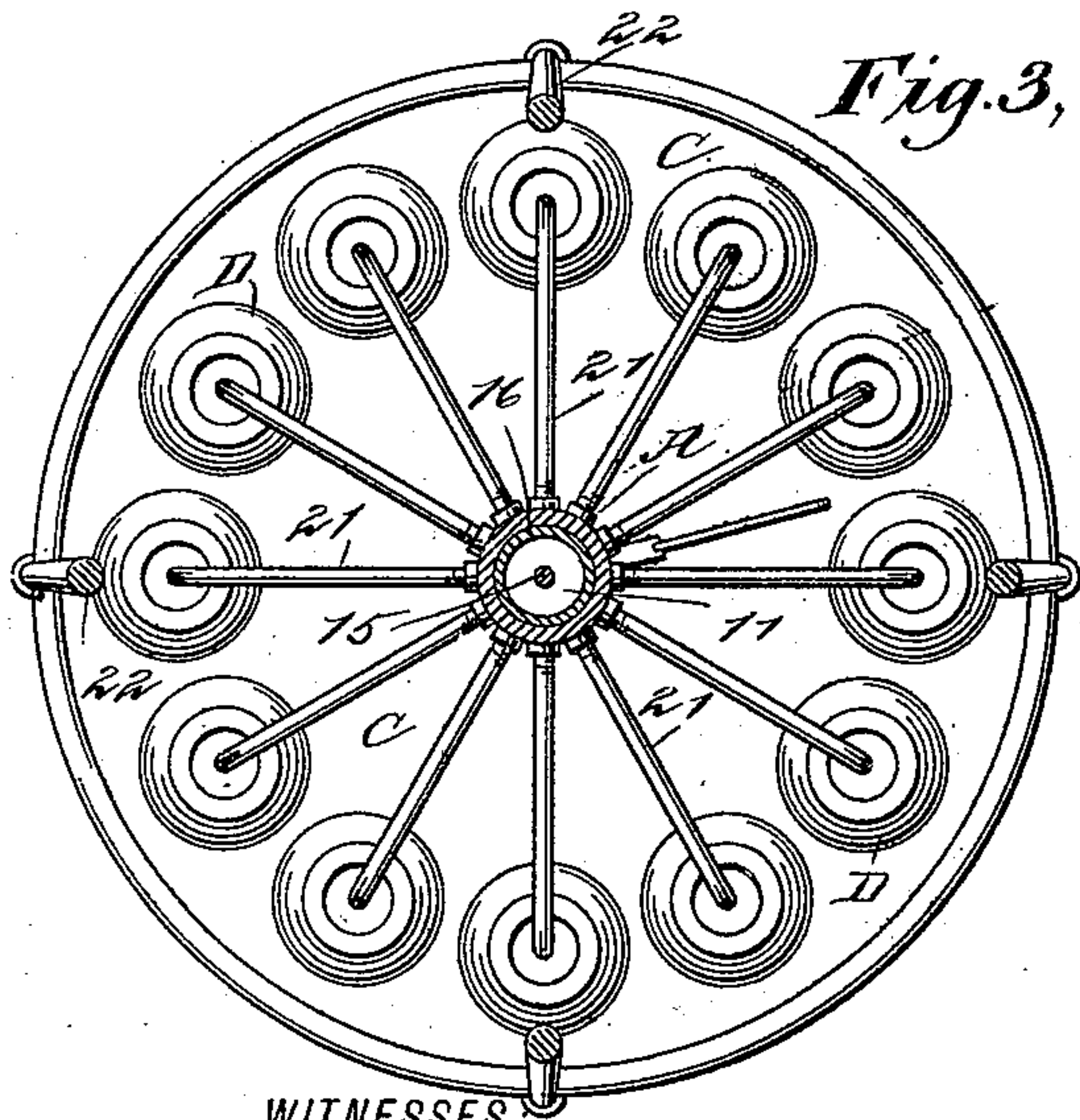
*Fig. 1.*



*Fig. 2.*



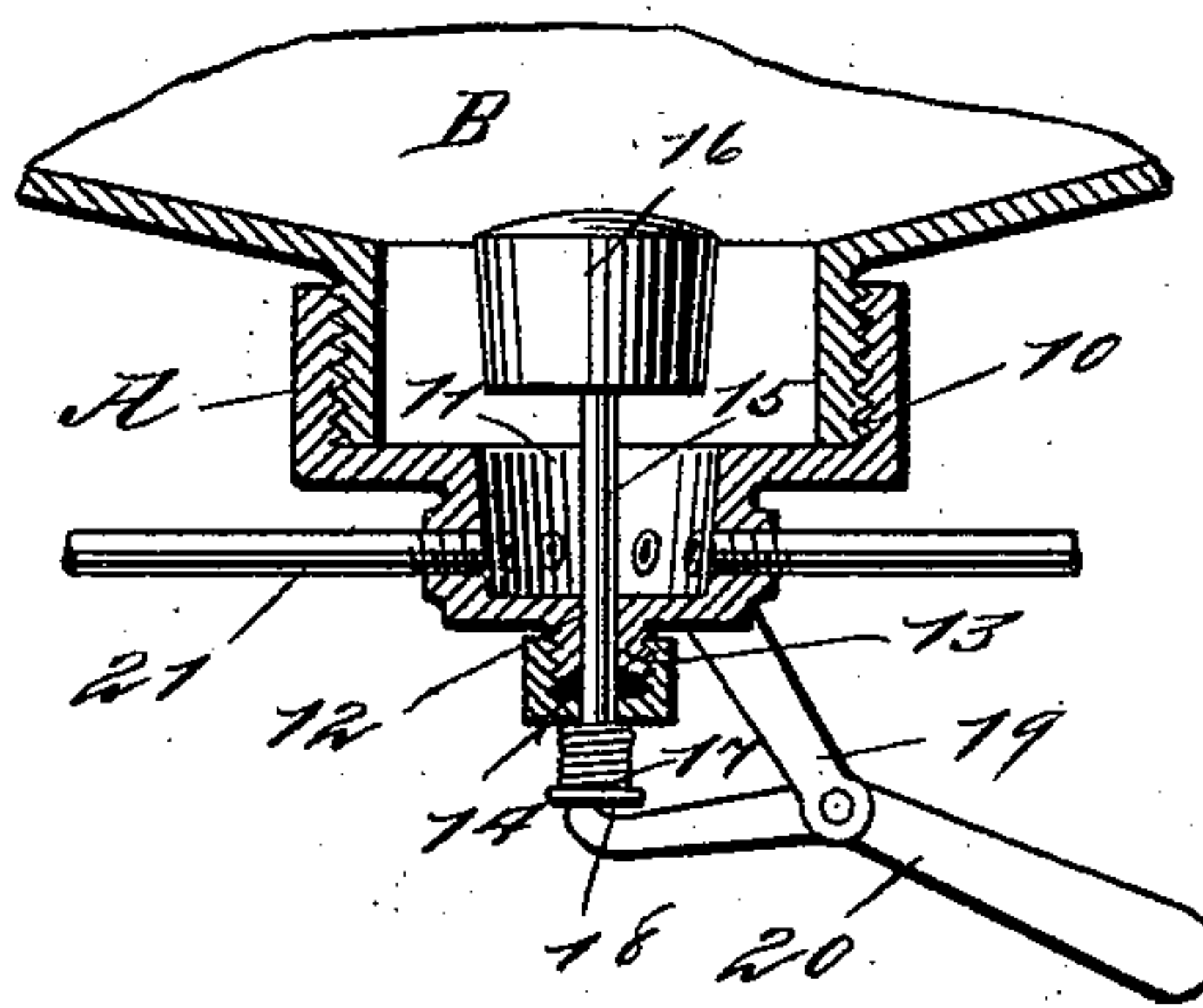
*Fig. 3.*



WITNESSES:

Edward Thorpe  
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*Fig. 4.*



INVENTOR

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# UNITED STATES PATENT OFFICE.

JAMES IREDALE, OF TORONTO, CANADA.

## BOTTLE-FILLING DEVICE.

SPECIFICATION forming part of Letters Patent No. 553,734, dated January 28, 1896.

Application filed August 29, 1895. Serial No. 560,928. (No model.) Patented in Canada July 23, 1895, No. 49,544.

*To all whom it may concern:*

Be it known that I, JAMES IREDALE, of Toronto, in the Province of Ontario and Dominion of Canada, have invented a new and Improved Bottle-Filling Device, (for which I have obtained Letters Patent in Canada, No. 49,544, dated July 23, 1895,) of which the following is a full, clear, and exact description.

My invention relates to an improvement in bottle-filling devices, and the object of the invention is to provide a device which will be exceedingly simple, durable and economic, and capable of application directly to a can or other receptacle or to a spout leading from a receptacle; and furthermore to so construct the device that a series of tubes will emanate from the body thereof, each tube being adapted to supply material to a bottle, and furthermore to provide a valve which will open or close all the tubes simultaneously.

A further object of the invention is to provide, in connection with the filling device, a tray arranged in such manner as to hold the bottle stationary when beneath the filling-tube.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a vertical section through a receptacle to which the filling device is directly applied, the said section being taken also centrally through the device and through the tray adapted to support the bottles, the valve of the device being represented as closed. Fig. 2 is a view similar to Fig. 1, in which the device is shown as attached to a spout leading from a receptacle. Fig. 3 is a horizontal section taken substantially on the line 3 3 of Fig. 1; and Fig. 4 is an enlarged sectional view through the device, illustrating the valve in an open position.

The device consists of a valve-casing A, made preferably in two diameters, forming an upper chamber, 10, which is threaded, and a lower and more contracted chamber, 11, the latter being preferably of conical shape. The

chamber 11 is provided with an opening in the bottom, preferably at or near the center, surrounded by an exteriorly-threaded collar 13, and the said collar is adapted to receive a gland 14. A valve-stem 15 is held to slide in the aforesaid gland and in the opening of the conical or valve chamber 11, since this chamber is adapted to receive a valve 16 carried by the upper end of the stem, the valve being of corresponding exterior contour to that of the chamber, and in order that the valve shall be as light as possible it is preferably made hollow, as illustrated in Figs. 1 and 2.

The valve-stem at its lower or outer end is surrounded or controlled by a spring 17, which has bearing against the said gland and a head 18 formed on the lower end of the valve-stem. This spring normally acts to seat the valve 16, and the valve is unseated through the medium of a lever 20 normally fulcrumed upon a bracket 19 projected downward from the lower portion of the valve-casing A, the said lever being constantly in engagement with the head of the valve-stem, and by pressing downward upon the lever, as shown in Fig. 4, the valve-stem will be forced upward, contracting the spring 17, and the valve 16 will be carried from its seat in the chamber 11.

Any desired number of tubes 21 are horizontally and radially arranged around the valve-chamber 11, and all of the said tubes are made to enter this chamber, being preferably removably secured in order that they may be readily cleaned. Ordinarily the tubes are screwed into the valve-casing, but they may be otherwise attached, and these tubes are also preferably downwardly curved at their outer or delivery ends, and when the valve is in its seat communication with any receptacle with which the valve-casing may be connected will be cut off.

When a receptacle, as shown in Fig. 1, is provided with a neck 21<sup>a</sup> as an outlet, the valve-casing is screwed directly on the neck, and the receptacle may be and preferably is supported by legs 22, attached to or placed in removable engagement with a tray C, and this tray is provided with depressions 23, corresponding in number to the number of tubes 21, a depression being immediately below the delivery end of each tube, and the depres-



sions are adapted to receive bottles D to be filled, so that these bottles will not slip or the liquid be spilled over the sides.

In the event that the receptacle is provided with a spout B', as shown in Fig. 2, the device is attached directly to the spout, and the spout, which is really in the nature of a spigot, will be found convenient for drawing off liquid from barrels, casks, &c. This device is exceedingly simple, durable and economical, and may be operated even by a child.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A bottle-filling device, the same consisting of a casing adapted for attachment to a source of liquid supply, the said casing being provided with a conical chamber, and a series of filling or distributing tubes entering the said chamber and projecting radially therefrom, the said tubes having downwardly-extending delivery ends, a spring-controlled valve shaped to be seated in the said chamber and close the inner ends of the distributing-tubes, and a lever exteriorly fulcrumed upon the said casing, a member whereof is in engagement with the outer end of the stem of the valve, as and for the purpose specified.

2. A bottle-filling device, the same consisting of a casing provided with two chambers of different diameters, the lower chamber being the smallest and conical in shape, a series of filling or distributing tubes entering the said conical chamber and projecting radially

therefrom, the said tubes having downwardly-extending delivery ends, a valve-stem having sliding movement in the said conical chamber, a conical valve carried by the said stem and adapted when seated in the conical chamber to close the inner ends of all the distributing-tubes, a spring surrounding the outer end of the valve-stem, and a lever held in engagement with the spring-controlled end of the valve-stem, substantially as and for the purpose specified.

3. The combination, with a receptacle containing liquid, and a tray below the receptacle and having recesses to receive bottles, said receptacle being supported from the tray of a bottle-filling device, the same consisting of a casing secured to the said receptacle and in communication with its interior, said casing being provided with a conical valve-chamber, a series of tubes leading into the said chamber and being curved at their outer ends, one over each depression in the tray, a spring-controlled valve adapted to be seated in the conical chamber and adapted also to simultaneously close or to simultaneously open the inner ends of all the tubes, the stem of the valve extending out through the casing, and means, substantially as described, for lifting the valve, as and for the purpose set forth.

JAMES IREDALE.

Witnesses:

JAMES LESLIE,  
THOMAS HALL.