No. 670,794. Patented Mar. 26, 1901.

J. B. LOTT.

VALVE.

(Application filed July 25, 1900.)

(No Model.)

FIG. 1.

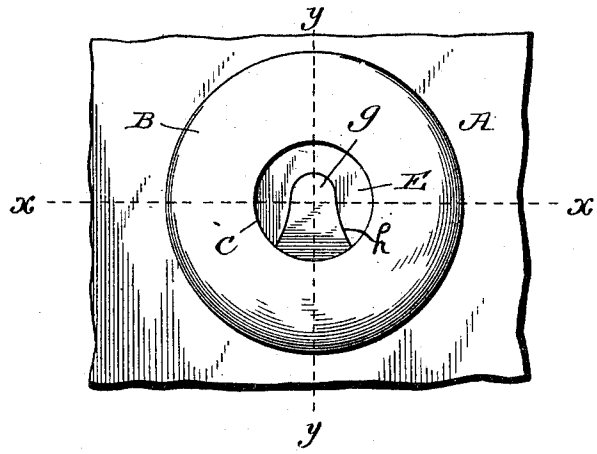


FIG. 2.

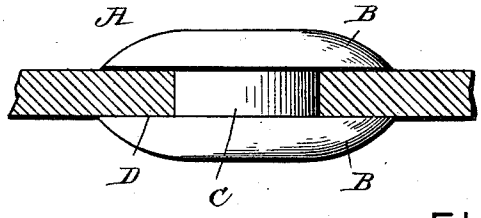


FIG. 3.

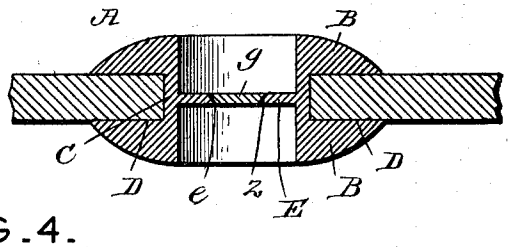


FIG. 4.

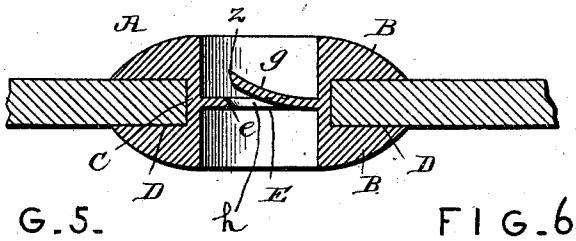


FIG. 5.

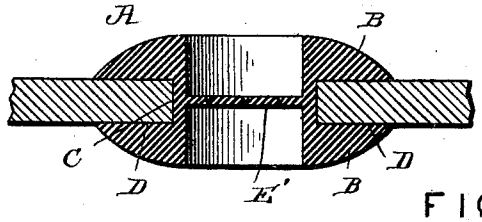


FIG. 6.

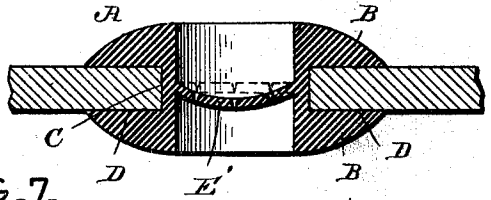
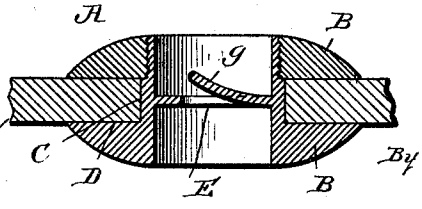


FIG. 7.



ATTEST.

Harry L. Amer.

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UNITED STATES PATENT OFFICE.

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VALVE.

SPECIFICATION forming part of Letters Patent No. 670,794, dated March 26, 1901.

Application filed July 25, 1900. Serial No. 24,803. (No model.)

To all whom it may concern:

Be it known that I, JOHN B. LOTT, a citizen of the United States, and a resident of Anderson, in the county of Madison and State of Indiana, have made a certain new and useful Invention in Valves; and I declare the following to be a full, clear, and exact description of the invention, 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, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 is a plan view of my valve. Fig. 2 is a side elevation of the same, showing the material engaged thereby. Fig. 3 is a similar view showing the valve in cross-section and closed. Fig. 4 is a cross-section of the valve, taken in a direction at right angles to the section as in Fig. 3 with valve open. Figs. 5 and 6 show a modified form of valve. Fig. 7 shows a valve the tongue of which is arranged to move in both directions.

The invention relates to button-valves; and it consists in the novel construction and combination of parts, as hereinafter set forth.

In the accompanying drawings the letter A designates a double button-valve consisting of the two lateral annular portions B B, connected at their inner edges by a central tubular portion or neck C. Between these ring portions B, which are of the nature of flanges to the neck C and are wedge form in cross-section, is an annular interval D, which provides for the engagement or fastening of the valve in position. One of these flanges may be made removable and threaded to engage a thread of the tubular portion, if desirable. In the tubular portion is a web or diaphragm E, normally closing the tube at the middle of its length, and this diaphragm is formed with a transverse valve-tongue *g*, extending from the wall of the tube and fitting a transverse valve opening or seat *h*, of similar shape to that of said tongue.

If the tongue is designed to work in both directions in the tube, the edge of the tongue is formed at right angles to its faces, so that it will pass the edge of its seat in either direction. Usually, however, the edge of the tongue is beveled, as indicated at *z*, while the edge of the opening or seat is correspondingly beveled, as indicated at *e*, in order that the edge of the tongue will abut against the seat when closed. When, however, pressure is brought to bear against the side of the tongue in the proper direction, the valve will open to allow passage; but when pressure is brought against the opposite side of the tongue the valve will close in a very effectual manner. This valve may be made of rubber or metal or such compositions as may be found suitable.

Figs. 5 and 6 illustrate a modified form of my invention, wherein the diaphragm E is of rubber or the like and is provided with perforations therein, which are of tapered form, the walls thereof coming together to close the same at one end of the perforations when the diaphragm is in normal position. When the diaphragm is bowed, however, under pressure of air or other fluid, as shown in Fig. 6, these walls of the perforations will separate to admit the passage of such fluid therethrough.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A valve consisting of parallel lateral separated annuli connected by a tubular portion having a valved diaphragm, substantially as specified.

2. A double-button or double-flange valve, having a tubular portion carrying a web, having a bevel-edge valve seat or opening, and a valve-tongue of similar shape to said valve seat or opening, and having a bevel edge of reverse character to that of said valve seat or opening, substantially as specified.

3. A valve, consisting of two annular lateral portions connected by a tubular portion or neck to leave an annular space therebetween, and a diaphragm in said tubular portion, and having a valve formed therein integrally thereof, substantially as specified.

4. A valve consisting of two annular lateral portions of wedge form in cross-section, and connected at their inner edges by a tubular portion or neck to leave an annular space therebetween, and a diaphragm in said tubular portion, having a valve formed therein integrally thereof, substantially as specified.

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

JOHN B. LOTT.

Witnesses:
JOSIAH M. MILLER,
DE WITT C. CHIPMAN.