

W. H. THOMAS, dec'd.
CHARLOTTE THOMAS, Executrix.

PUMP-VALVE.

No. 181,497.

Patented Aug. 22, 1876.

Fig. 1

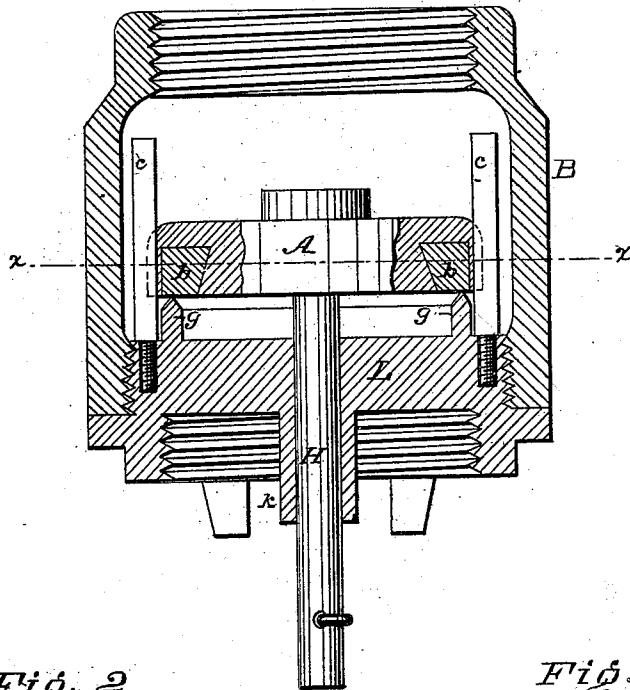


Fig. 2

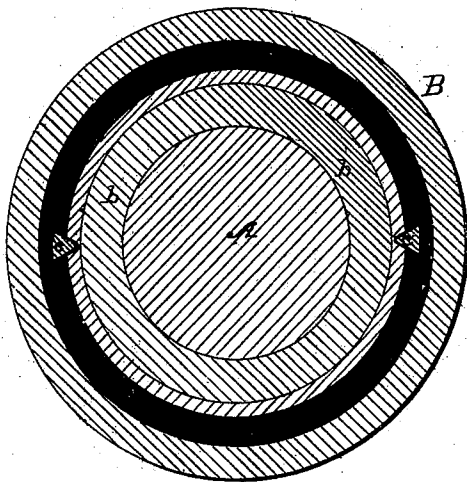
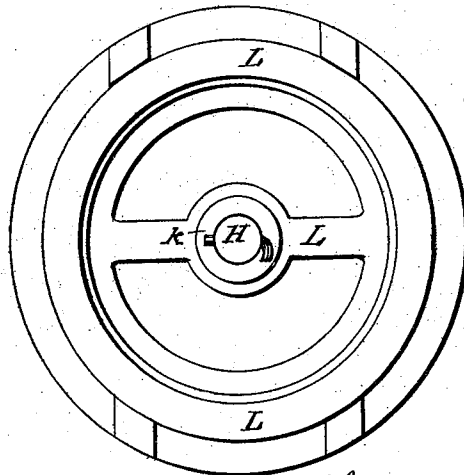


Fig. 3



WITNESSES:

J. H. Kemon
C. H. Pettit

Charlotte Thomas
Executrix of the last
Will and Testament of
W. H. Thomas

BY

Wm. V. C.

ATTORNEYS.

UNITED STATES PATENT OFFICE.

CHARLOTTE THOMAS, OF SACRAMENTO, CALIFORNIA, EXECUTRIX OF
WILLIAM H. THOMAS, DECEASED.

IMPROVEMENT IN PUMP-VALVES.

Specification forming part of Letters Patent No. **181,497**, dated August 22, 1876; application filed
April 10, 1876.

To all whom it may concern:

Be it known that W. H. THOMAS, deceased, late of the city and county of Sacramento, State of California, did invent a certain Improved Pump-Valve; and the following specification is a full and exact description of the same, reference being had to the accompanying drawing, in which—

Figure 1 is a vertical section. Fig. 2 is a cross-section on line *x x* of Fig. 1, and Fig. 3 a bottom-plan view of the valve and its case.

The object of the invention is to provide an improved substitute for puppet-valves heretofore in use.

To this end the invention relates particularly to the valve-seat, composed of hard metal and having a beveled rim, the metal valve having an annulus of soft metal secured in a suitable cavity, and the vertical guides for causing the valve to seat itself accurately, these elements being conjoined under the particular arrangement hereinafter described.

Referring to the drawing, B is the cylindrical valve-case; A, the valve, provided with the annulus *b*, of soft metal, and having a stem, H, working in a guide. *g* is the beveled valve-seat, formed on the removable head L of the case, and *c c* are the parallel vertical guide-bars projecting from the head L, and fitting in notches in the edges of the valve. The annulus *b* is composed of lead or other soft metal, run into a cavity in the valve, which is dove-

tailed in cross-section, so that the metal cannot be removed or displaced by the jarring occasioned by the operation of the valve. The raised valve-seat *g* is circular in form and beveled to a sharp edge, as shown, so that it will embed itself in the soft-metal annulus *b*. The stem H of the valve guides it with considerable accuracy; but to insure a perfectly water-tight joint it is necessary to employ the guide-bars *c*, in order to prevent the valve turning on its axis, and compel it to seat itself in such a manner that each part of the beveled rim will always strike in the same part of the annulus. If the valve were allowed to turn on its axis a water-tight joint would be seldom formed, since the beveled rim will usually wear unequally, and the soft-metal annulus is ordinarily not perfectly homogeneous in quality.

A valve provided with a soft-metal rim is not claimed; but

I claim—

The combination of the raised beveled rim or seat *g*, the notched valve, provided with the soft-metal annulus *b*, secured in a dovetail cavity, the vertical parallel guide-bars *c c*, projecting from the head L, as shown and described, to operate as specified.

CHARLOTTE THOMAS, *Executrix*.

Witnesses: *

T. B. REID,
BEN. BULLARD, Jr.