

(No Model.)

A. R. SPAULDING.
COMBINED VALVE AND SEAT GRINDING DEVICE.

No. 563,331.

Patented July 7, 1896.

Fig. 1

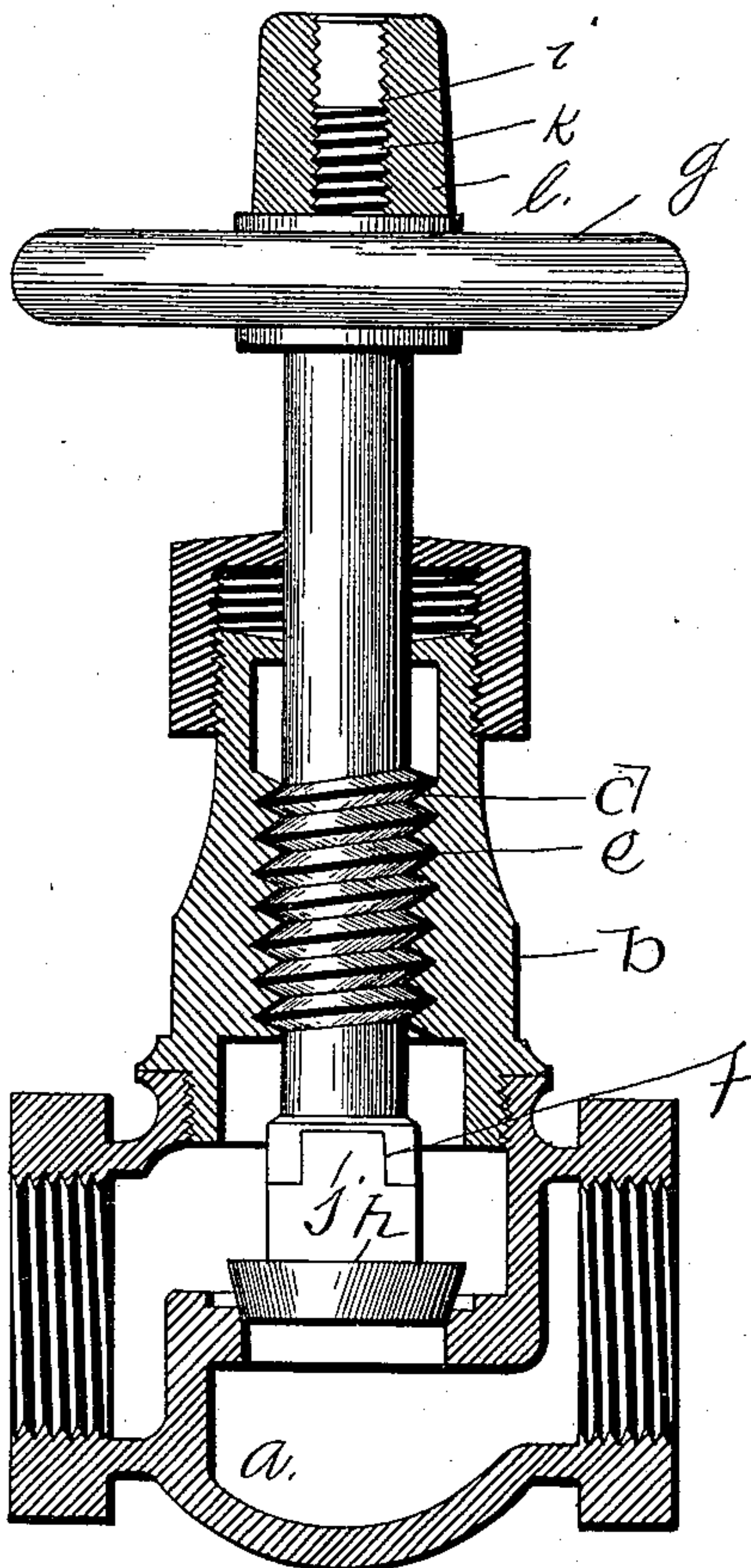


Fig. 2

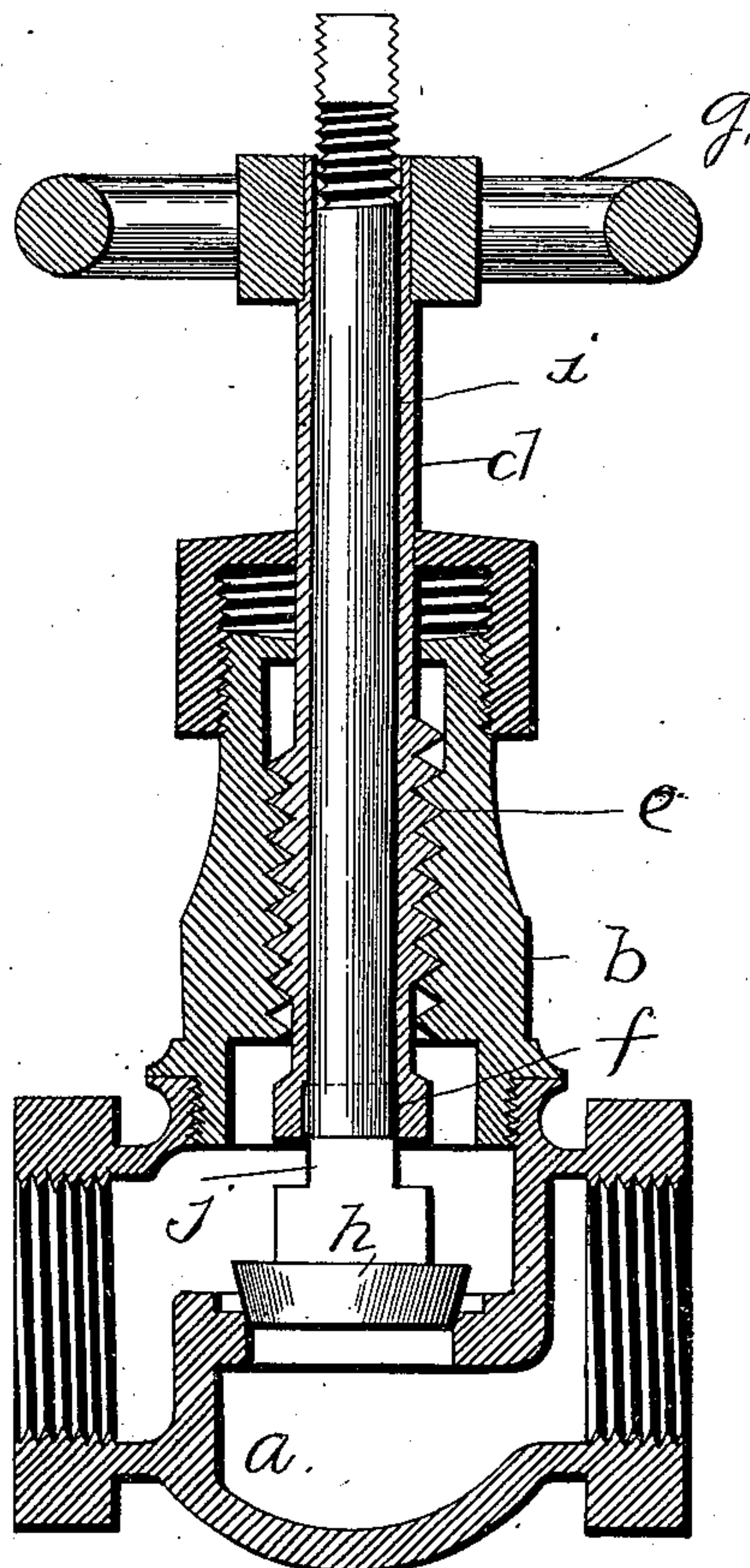


Fig. 3

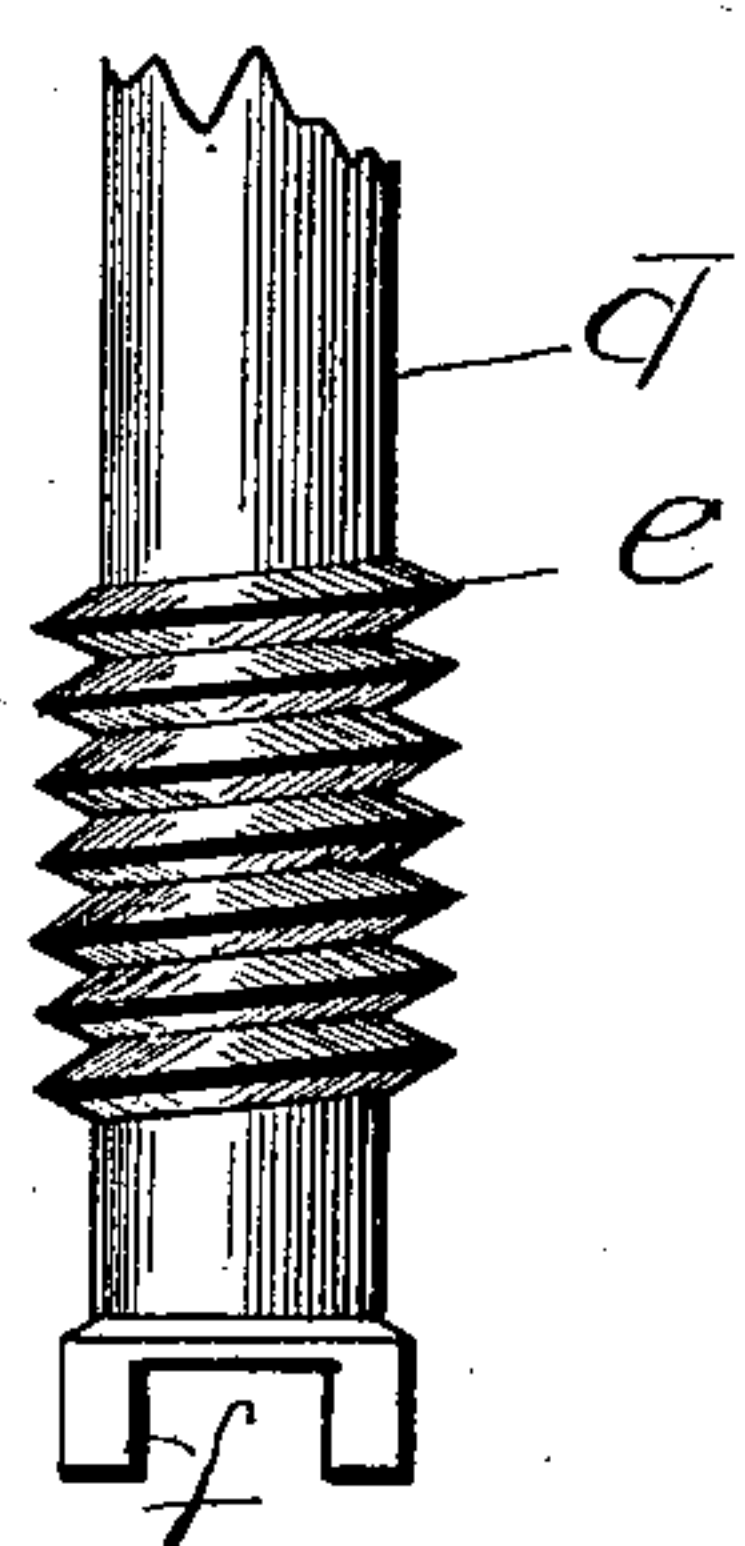
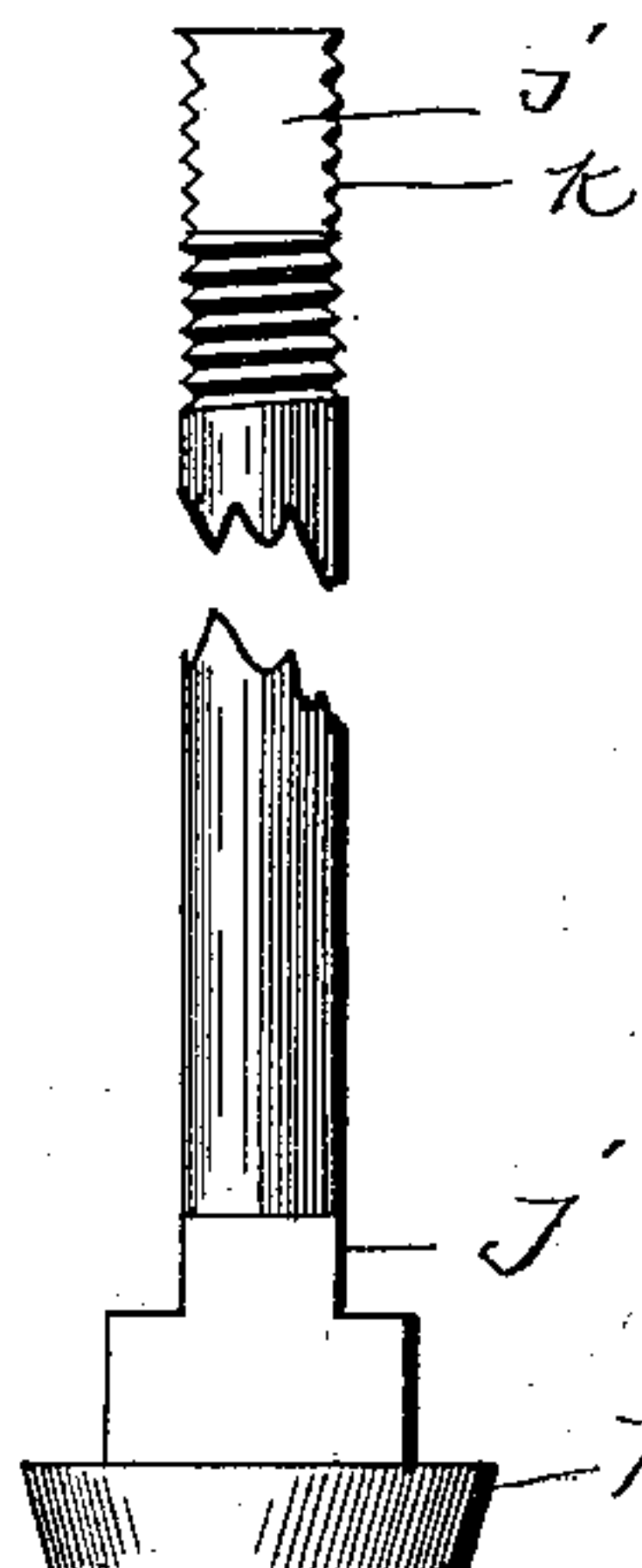


Fig. 4



Witnesses

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UNITED STATES PATENT OFFICE.

ALMOND R. SPAULDING, OF CLINTON, MAINE.

COMBINED VALVE AND SEAT GRINDING DEVICE.

SPECIFICATION forming part of Letters Patent No. 563,331, dated July 7, 1896.

Application filed October 22, 1894. Serial No. 526,584. (No model.)

To all whom it may concern:

Be it known that I, ALMOND R. SPAULDING, a citizen of the United States of America, residing at Clinton, in the county of Kennebec and State of Maine, have invented certain new and useful Improvements in a Combined Valve and Seat Grinding Device; and I do hereby 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.

My invention relates to improvements in a combined valve and seat grinding device. It is designed to provide a valve which may at will be connected with or disconnected from an adjustable stem whereby the valve may be rotated upon the seat when thus disconnected.

In the drawings herewith accompanying and forming a part of this application, Figure 1 is a sectional view of a valve-case having my improvement attached thereto, showing valve spindle and stem locked together. Fig. 2 is a sectional view of same, showing valve spindle and stem unlocked. Fig. 3 is a detail of the valve-stem, and Fig. 4 is a detail of the valve and its spindle.

Same letters refer to like parts.

In said drawings, *a* represents the case; *b*, the head adapted to be screwed thereto and having an interior thread *c*. Mounted in said head is the valve-stem *d*, having an exterior thread *e*, adapted to work in the thread in said head. In the lower extremity of said valve-stem is a socket *f*, and attached to the upper extremity of said valve-stem is a lever or wheel *g*. The valve *h* has a spindle *i* extending upwardly through said valve-stem and a shoulder *j* thereon adapted to enter said socket in the valve-stem, thereby causing the stem and spindle to turn together. The upper end of said spindle has a thread *k* cut thereon, which receives a nut *l*.

The operation of my improved device is as follows: In the position shown in Fig. 1 the valve and valve-stem are locked together and turned together, being moved up or down by the thread, according to the direction in which the same is turned. To disconnect the valve

from the valve-stem, so that it may turn independently thereof, first turn the valve and stem until the valve is raised from the seat a distance somewhat greater than the depth of the socket, then unscrew the nut on the top of the spindle, and the valve will then drop down upon the seat, the shoulder falling below the socket and thus permitting the valve to rotate independently of the valve-stem. It may therefore be held down upon the valve-seat and turned thereon as much as desired. Unless the valve can be disconnected from the valve-stem proper, the valve cannot be rotated upon the seat, but only turned down until it rests upon the seat.

The advantage of my improved device is that a valve-seat may be ground at any time without the use of special tools for operating the grinding device.

Having thus described my invention and its use, I claim—

1. The combination with a valve case and head, of a hollow stem adapted to work in said head and having a socket in its lower end and a valve having a spindle extending upwardly through said stem and a shoulder adapted to enter said socket and lock the stem and valve together within the valve-chamber and an adjusting-nut on the upper end of said spindle, substantially as and for the purposes set forth.

2. The combination with a valve case and head, of a hollow stem adapted to work in said head and having a socket in its lower extremity and an operating-lever secured to its upper extremity, and a valve having a shoulder on its lower extremity adapted to enter said socket and a spindle adapted to extend upwardly through said hollow stem and having an adjusting-nut on the top, whereby said valve and hollow stem may be locked from the outside at a point within the valve-case, substantially as and for the purposes set forth.

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

ALMOND R. SPAULDING.

Witnesses:

ELGIN C. VERRILL,
NATHAN CLIFFORD.