

(No Model.)

J. H. BLESSING.

VALVE.

No. 300,836.

Patented June 24, 1884.

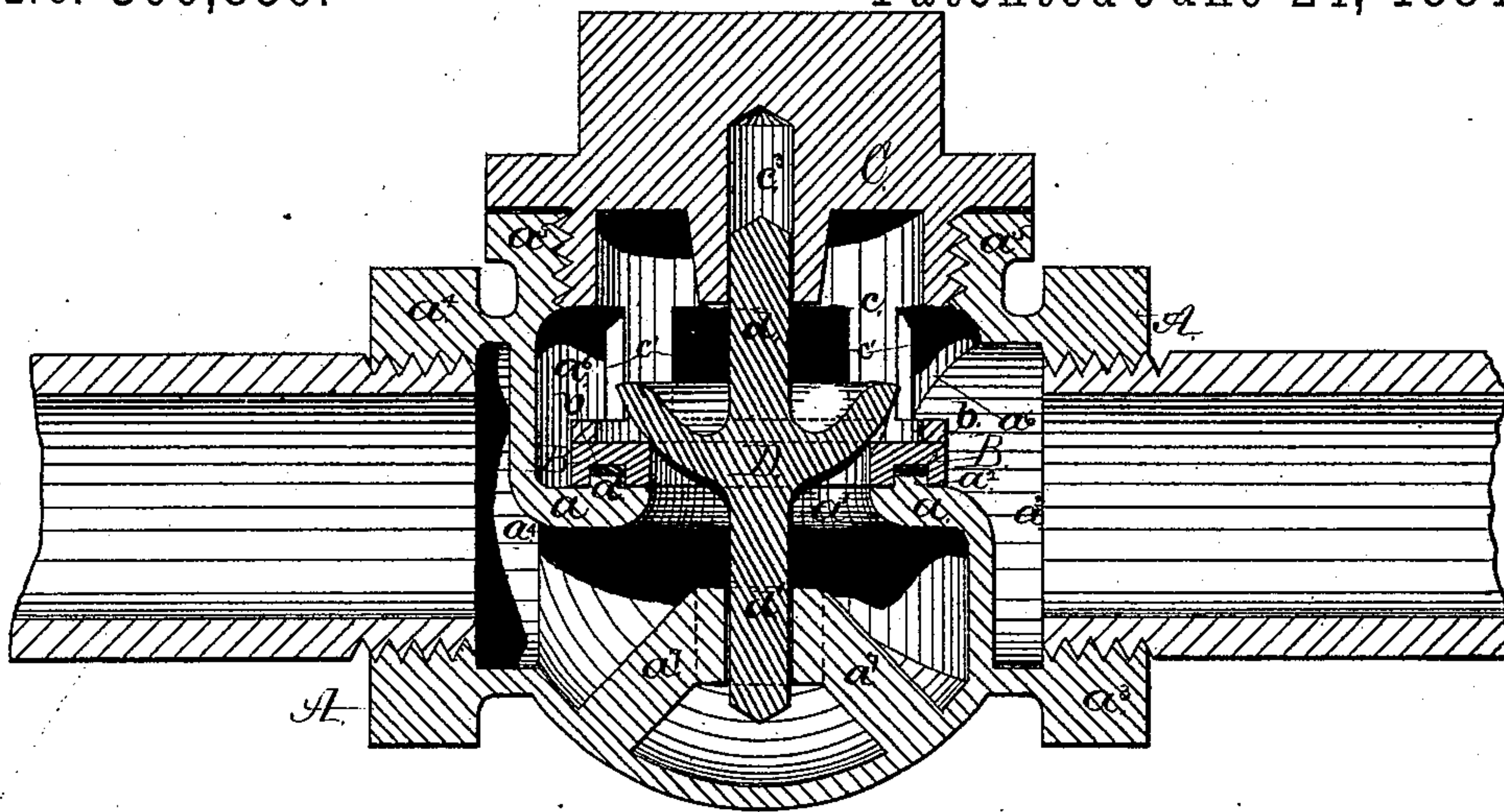


FIG. 1.

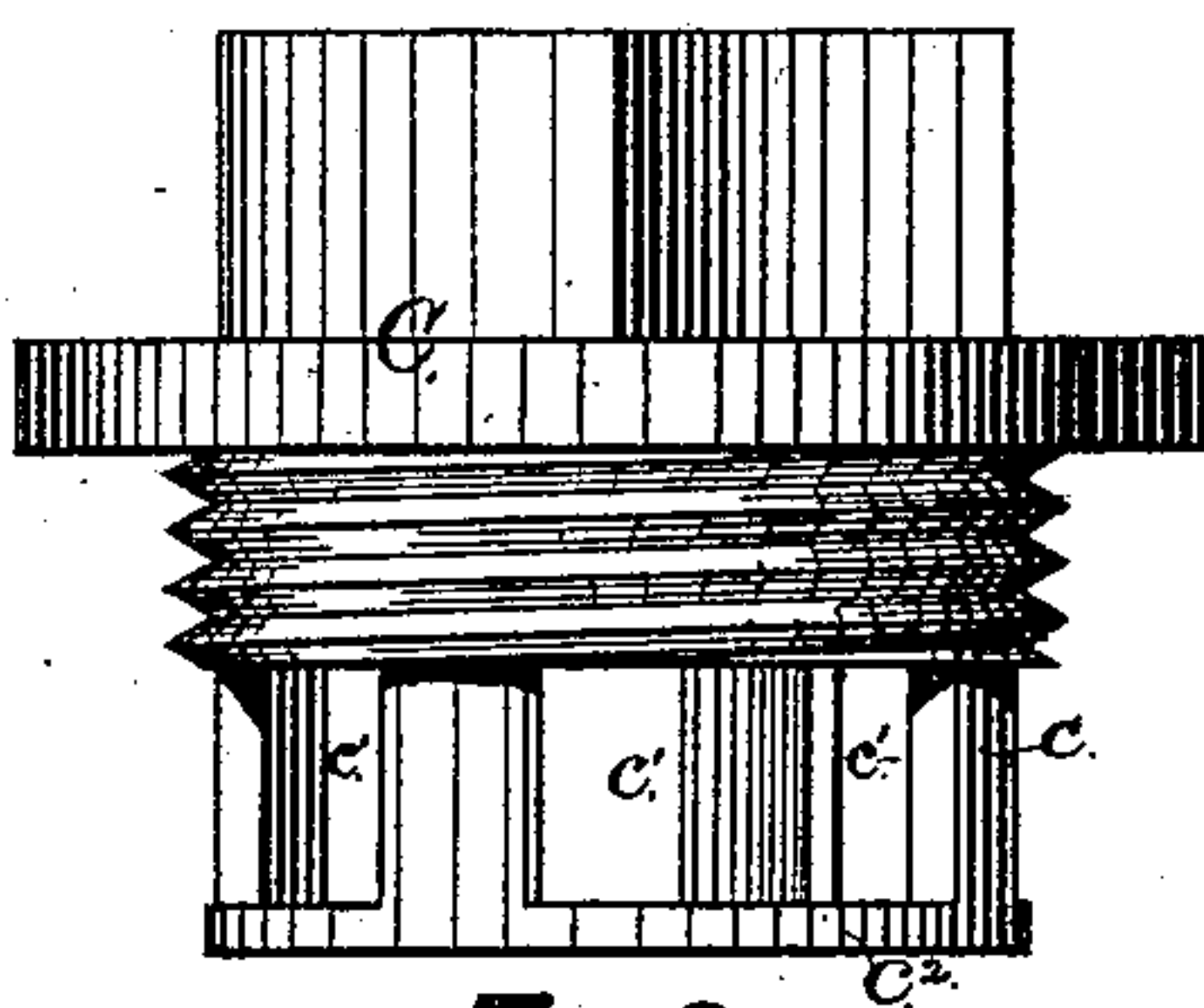


FIG. 2.

*Witnesses:*

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# UNITED STATES PATENT OFFICE.

JAMES H. BLESSING, OF ALBANY, NEW YORK.

## VALVE.

SPECIFICATION forming part of Letters Patent No. 300,836, dated June 24, 1884.

Application filed November 10, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES H. BLESSING, of the city and county of Albany, in the State of New York, have invented certain new and useful Improvements in Valves, of which the following is a specification.

My invention relates to improvements on that class of valves that are provided with removable seats, as fully set forth and described in Letters Patent of the United States No. 272,634, which were granted to me on the 20th day of February, 1883; and the object of this present improvement is to simplify the construction and reduce the cost of renewing the removable seat. This object I attain by means of the construction illustrated in the accompanying drawings, which form part of this specification, and in which—

Figure 1 is a longitudinal section of a valve containing my improvements; and Fig. 2, a side elevation of the bonnet or cap for the valve-casing.

As represented in the drawings, A is the valve-casing; B, the removable valve-seat; C, the bonnet or cap for valve-casing, and D the valve.

The valve-casing A, as shown in the drawings, is made in the ordinary globe-valve form; but when preferred it may be made in any form best suited to the purpose for which it is to be used. The said casing has a horizontal partition, *a*, provided with a central circular opening, *a'*, and an annular tongue, *a''*, which is concentric to the opening *a'*. Said casing is also provided with an induction branch, *a'''*, eduction branch *a''''*, and a top branch, *a''''''*, through which access to the valve is obtained.

The removable valve-seat B is the form of an annulus whose opening conforms to the size and shape of the opening *a'* of the valve-casing. Said valve-seat has in its lower face an annular groove, which fits upon the annular tongue *a''*, and which contains a ring, *b*, of elastic packing, that forms a tight joint between the partition *a* and the valve-seat.

The bonnet or cap C is fitted into the top branch, *a''''''*, of the valve-casing, and is secured therein by means of a screw-thread, as shown in the drawings, by bolts, or by any other of

the suitable and well-known means used for that purpose. On the under side of said bonnet a cylindrical cage, *c*, is formed as an integral part thereof. Said cage is provided with a series of openings, *c'*, which are made through its cylindrical shell, and which form outlets from the interior of the cage into an annular passage, *a''*, that leads into the eduction-opening of the valve-casing. The rim *c''* on the lower end of the cage *c* bears upon the uppermost face of the removable valve-seat B in such manner that the latter will be held firmly in place when the bonnet C is properly secured.

The valve D shown in the drawings is one form of the puppet-valve; but the form of it may be varied at pleasure. Said valve is provided with two guiding-stems, the upper one, *d*, being fitted to slide in an opening, *c'''*, in the bonnet, and the lower one, *d'*, being guided in a steadiment, *a''''*, formed in the lower part of the valve-casing.

It is manifest that by making the cage *c* a part of the bonnet C, instead of having it form part of the removable valve-seat, as shown and described in my Letters Patent No. 272,634, a considerable saving is effected, for the reason that by this improvement the removable valve-seat B is a simple and inexpensive ring, and the bonnet C and its cage *c* may be used continuously with every renewal of the said valve-seat.

I claim as my invention—

The combination, with a valve-casing, A, having a partition, *a*, provided with an annular tongue, *a''*, and removable valve-seat B, having an annular groove that fits over the annular tongue *a''*, as herein described, of the bonnet C, having a cage, *c*, which forms an integral part of said bonnet, and is provided with openings *c'*, as herein set forth, the said cage being adapted to bear upon the upper face of the removable valve-seat B, so as to secure the latter rigidly in place, as herein specified.

JAMES H. BLESSING.

Witnesses:

WILLIAM H. LOW,  
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