

J. V. MATHIVET.
Ball-Joints for Chandeliers.

No. 156,228.

Patented Oct. 27, 1874.

Fig. 1.

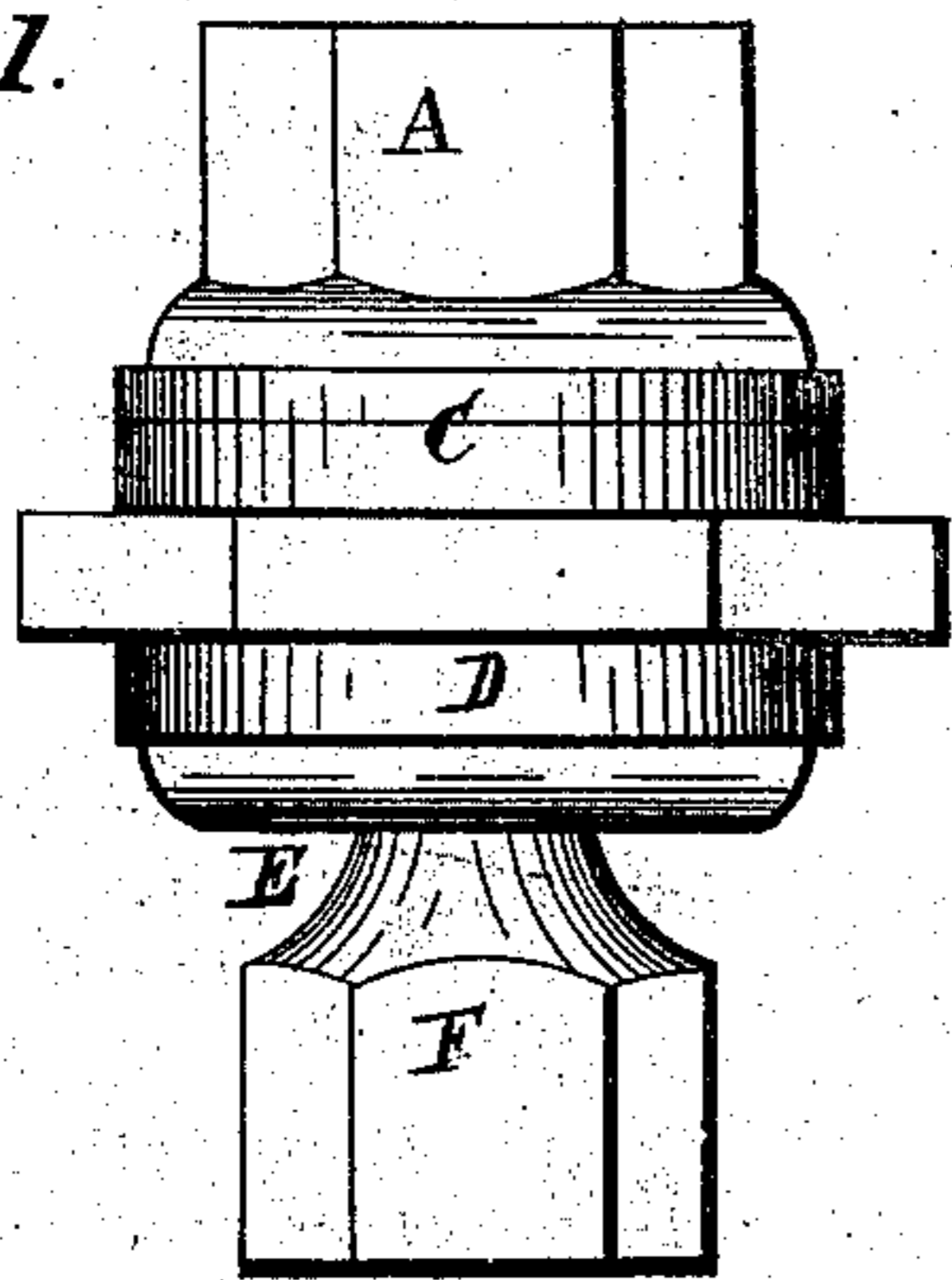


Fig. 2.

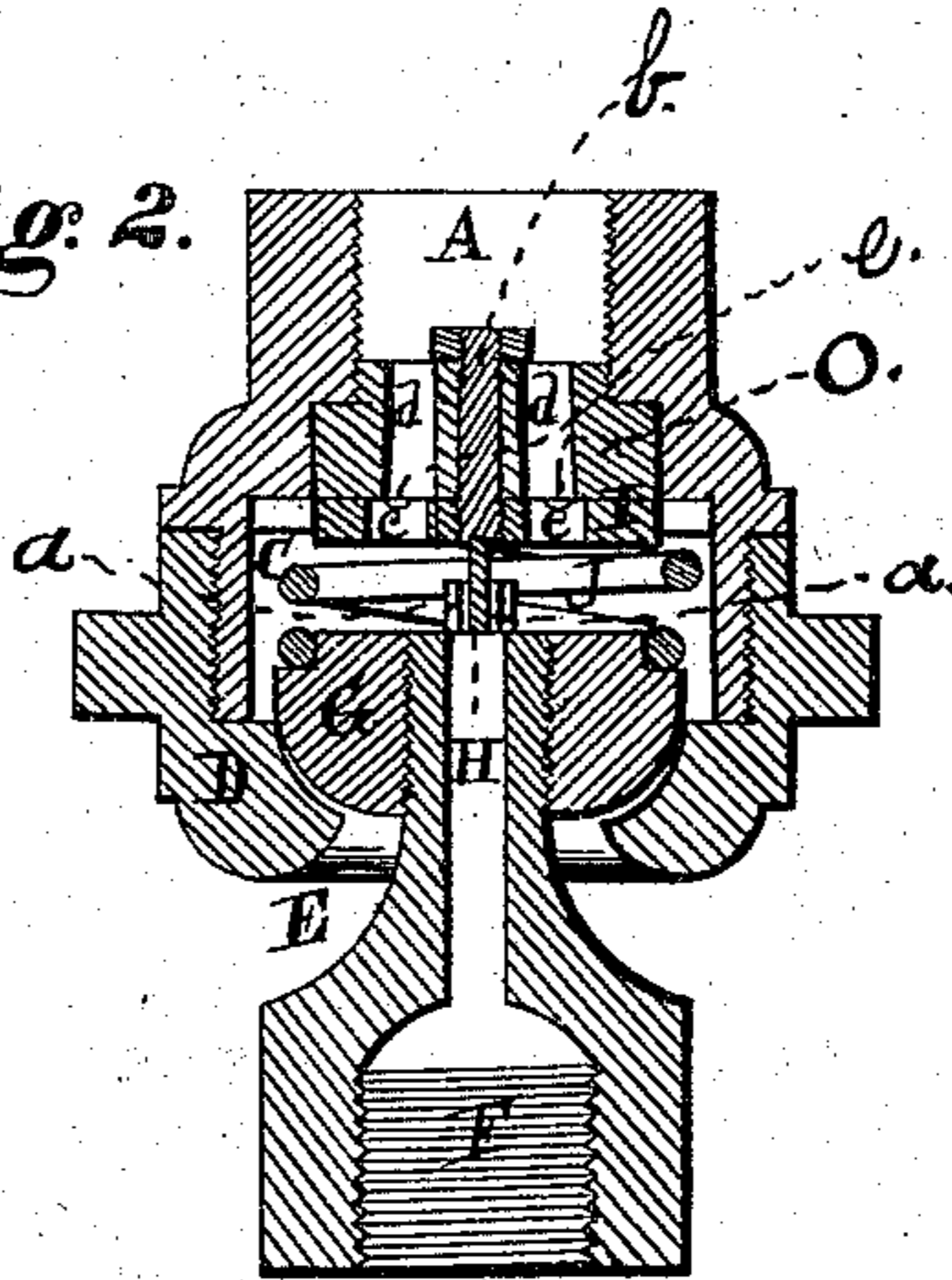


Fig. 3.

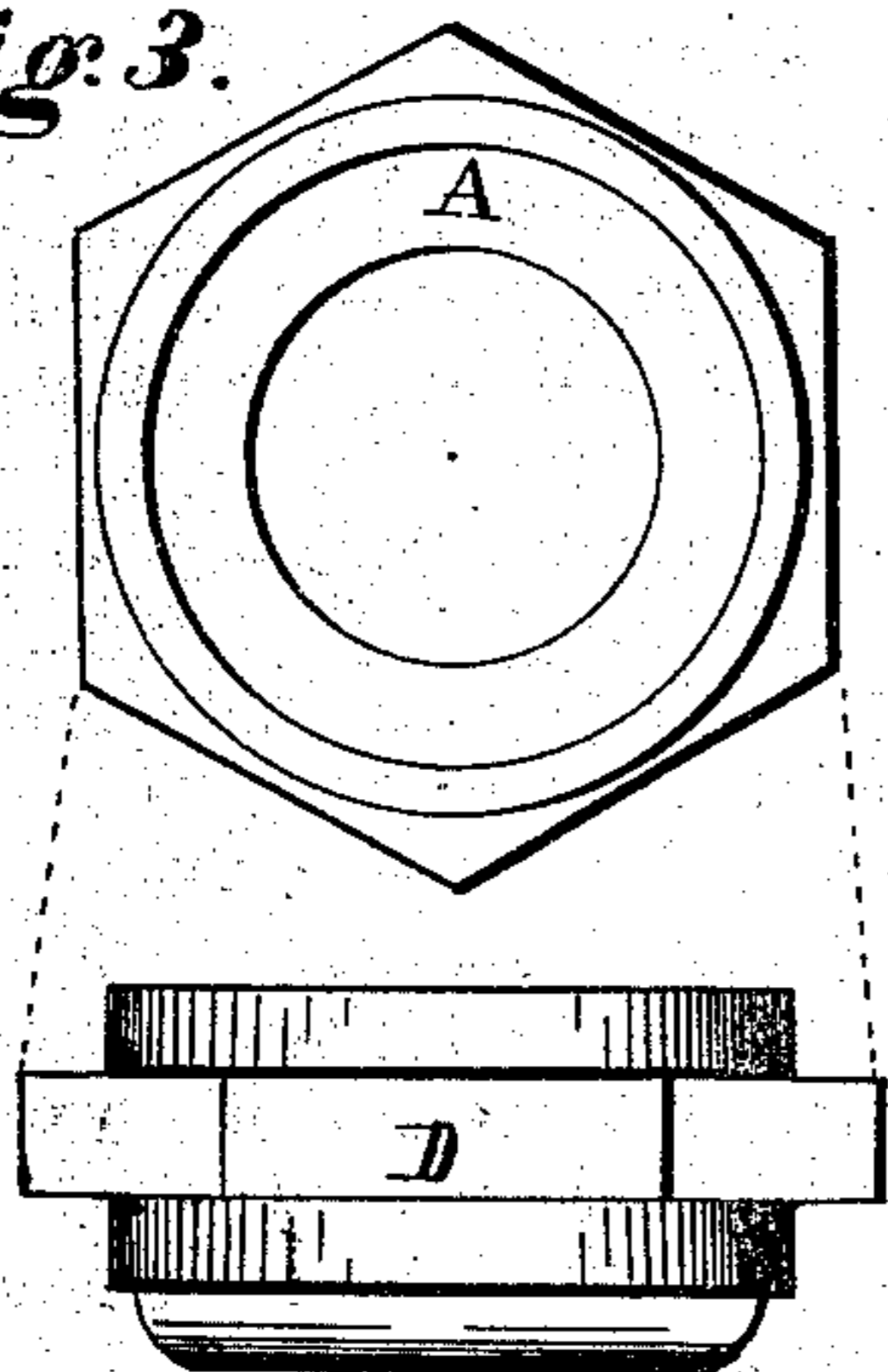


Fig. 4.

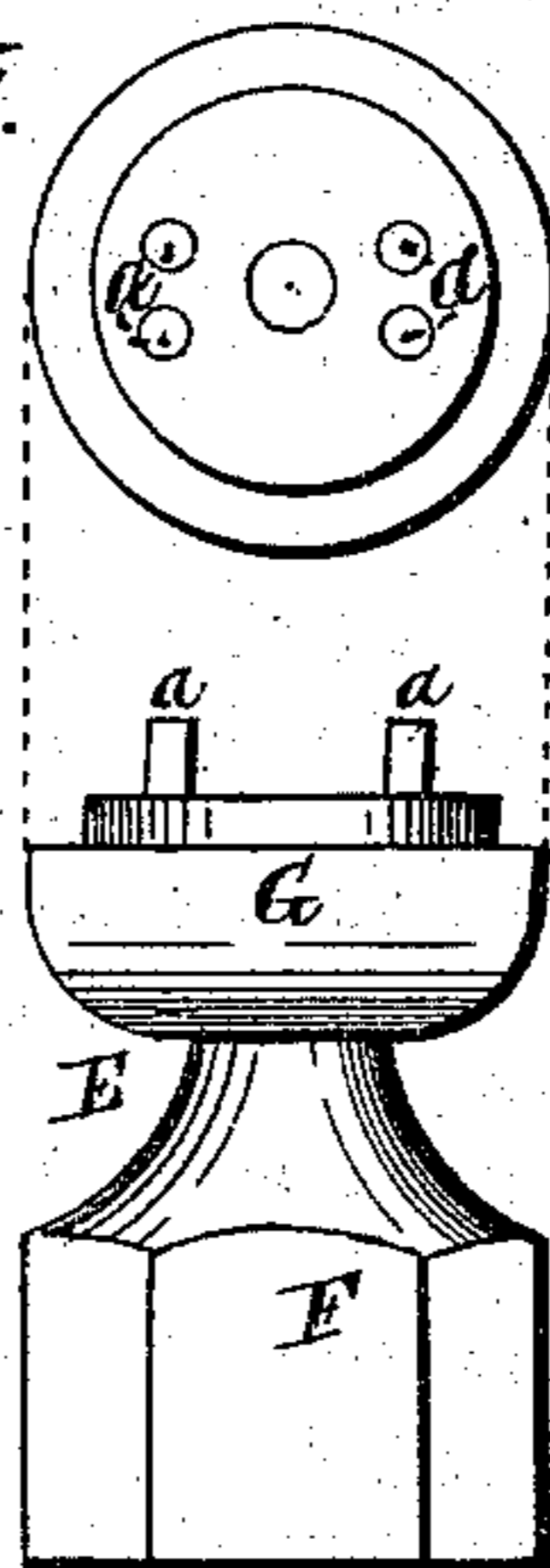


Fig. 5.

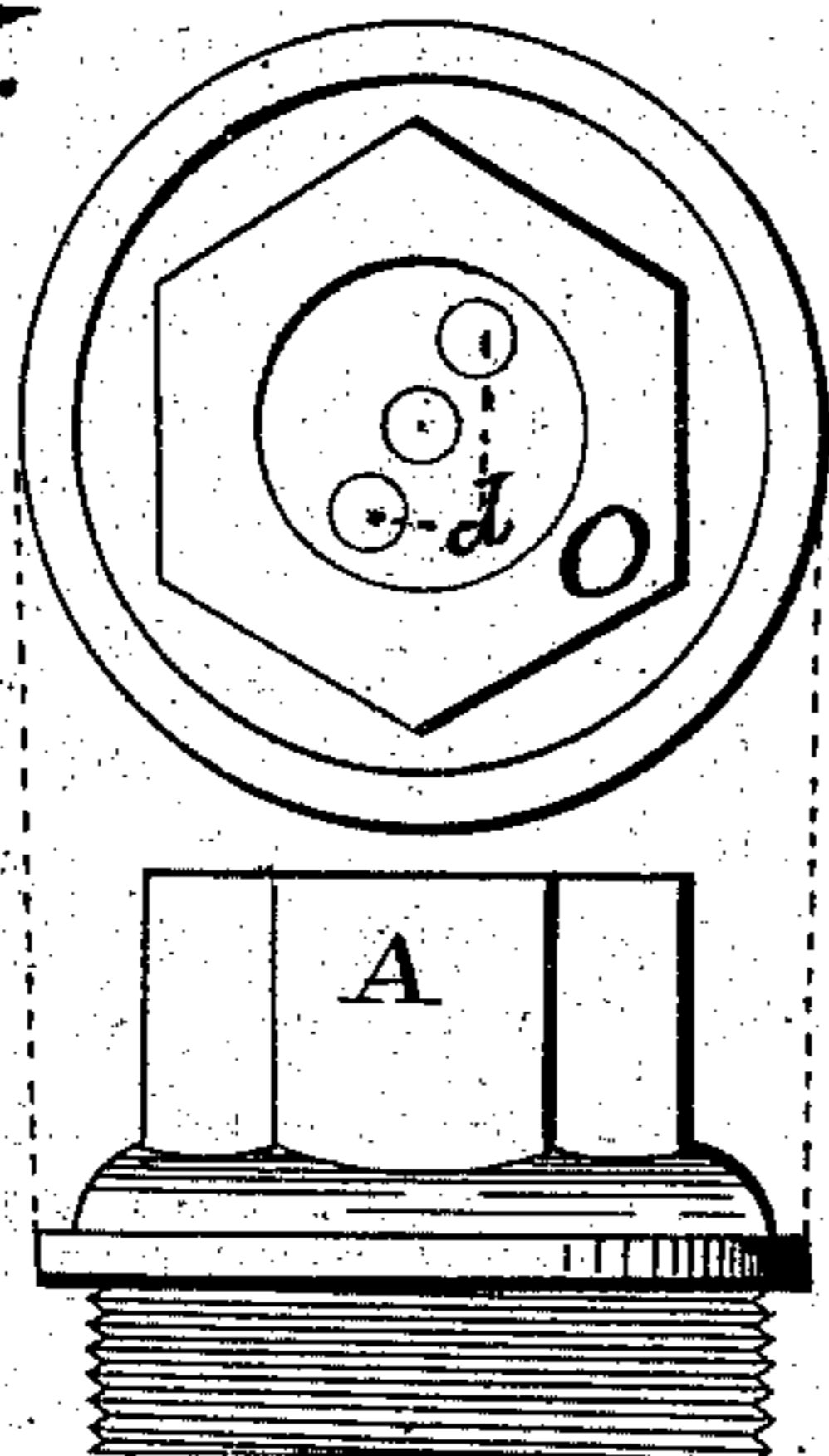


Fig. 6.

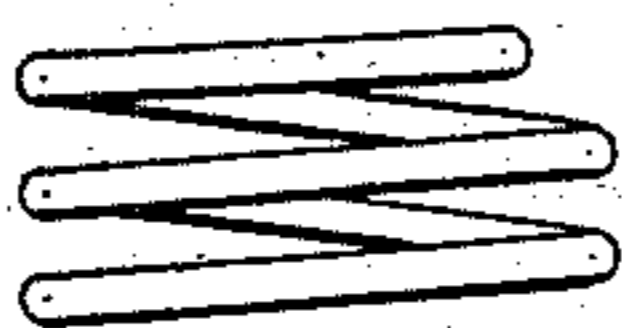
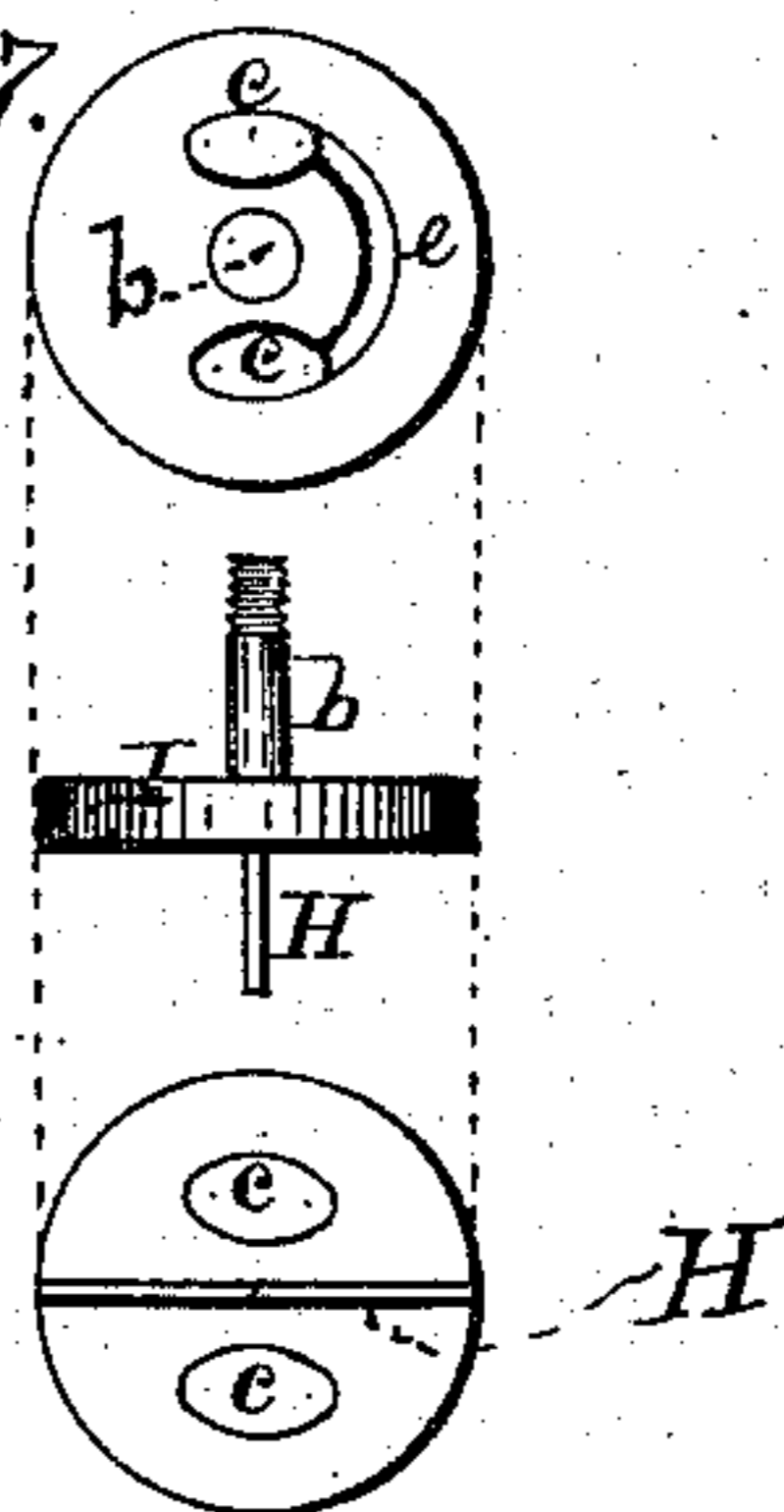


Fig. 7.



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UNITED STATES PATENT OFFICE.

JEAN V. MATHIVET, OF CLEVELAND, OHIO.

IMPROVEMENT IN BALL-JOINTS FOR CHANDELIERS.

Specification forming part of Letters Patent No. **156,228**, dated October 27, 1874; application filed June 30, 1874.

To all whom it may concern:

Be it known that I, JEAN V. MATHIVET, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and Improved Ball-Joint for Chandeliers; and I do hereby declare that the following is a full, clear, and complete description thereof, reference being had to the accompanying drawing, making part of the same.

Figure 1 is an outside view of the gas-fixture or ball-joint. Fig. 2 is a transverse vertical section. Fig. 3 is an end view. Figs. 4, 5, 6, and 7 are detached sections.

Like letters of reference refer to like parts in the several views.

The nature of this invention relates to a valve used in combination with a gas-fixture coupling or ball-joint, for the purpose of regulating the flow of gas to the burners of a chandelier, the valve being operated by the adjustment of the coupling, substantially in the manner as follows:

The coupling above referred to consists of a chambered nut, A, Figs. 1 and 2, of which the part C is the chamber. A detached view of the nut is shown in Fig. 5. To the chambered part of the nut is screwed a shell or bowl, D, a detached view whereof is shown in Fig. 3. To the bowl is fitted a swivel-nut or hanger, E, Fig. 1, of which Fig. 4 is a detached view. Said hanger consists of a nut, F, and a semi-spherical head, G, which is of a size to fit in the corresponding concave of the bowl referred to, as shown in Fig. 2, in which it will be seen that the neck of the hanger is much smaller than the opening in the bottom of the bowl through which it passes, whereby the nut F is allowed a freedom of movement in consequence of the ball-and-socket-like joint, consisting of the head G and the bowl D, in which the head is held, and whereby the nut is suspended. In the top of the head are four studs, arranged in the order as shown in Fig. 4, between which is received and retained in place the wing H of the valve I, Fig. 7, as shown in Fig. 2. The valve I is secured in the nut A by a stem, b, and nut O, as shown in said Fig. 2, in which it will be seen that the bottom of the nut forms the seat of the valve, and on which the valve turns for bringing the ports

c thereof in open relation to the ports d of the valve-seat, or for closing the same. The ports c of the valve are connected to each other by a groove, e, Fig. 7, the purpose of which will presently be shown. Interposed between the head G and the bottom of the chamber C is a spring, J, Fig. 2, the purpose of which is to keep the head G in close contact with the concave in which it turns, to insure a gas-tight joint of the two ports, and also to prevent the joint from moving too freely. A detached view of the spring is shown in Fig. 6. The relative position and arrangement of the several parts in respect to each other are shown in Fig. 2, and the operation whereof is as follows:

As aforesaid, the object of this coupling is for suspending a chandelier from the ceiling, or rather from the gas-pipe thereof, which is done by screwing the nut A thereon. To the lower end of the coupling the pipe of the chandelier is secured by the nut F. The purpose of the ball-and-socket joint, above described, is to permit a universal swing or vibration of the chandelier, and to allow it to hang perpendicularly when undisturbed by any lateral influence.

The chandelier, when thus attached to and suspended from the gas-pipe in the ceiling, is supplied with gas from said pipe by its passing through the coupling—thus: Through the port d and the port c of the valve, which are in open relation to each other, as shown in Fig. 2, into the chamber C, thence down the swivel-hanger E to the shaft of the chandelier screwed thereto, along which, to the several burners, each whereof is supplied with a stop-cock, which may now be opened for lighting the burners.

It is sometimes desirable to have less light than all the burners give with a full head of gas on. To effect this end, it is necessary either to shut off some of the burners entirely, or all of them partially. For the latter way each gas-cock must be partially turned to shut off a part of the gas; or, for the former way more or less of the cocks are turned entirely, to shut off the gas wholly. To do this is a matter of some trouble, and considerable time is required, more especially when the burners

are numerous. The gas can be partially shut off, and thereby have less light by means of the main gas-cock, but in doing it by this means other chandeliers and burners are equally shut off, which may not be desirable, as the light only of one or more chandeliers needs to be partially subdued. To avoid this trouble in manipulating the several cocks of the chandelier is the purpose of the valve I, above described, and which is operated, for the purpose of shutting off the gas partially, by turning the chandelier a quarter of the way around, which will bring the blank of the valve over the port *d* of the valve-seat, thereby shutting off the gas, but not wholly, as a small amount will continue to pass to the burners through the groove or channel *e* in the face of the valve leading from one port to the other, as shown in Fig. 7. Said groove, when the valve is turned quartering, will be over one of the ports *d*, which will allow sufficient gas to flow to the burners to make a subdued light.

This turning around of the chandelier for

the purpose specified is easily done, as the head *G* of the joint moves easily in its seat, and which, as it turns, carries around with it the valve attached thereto in a loose manner, by the studs *a* and wing *H*, as above described.

It will be obvious that, on not turning the valve by means of the chandelier so far around as a quarter, but any degree less than that, the ports *c d* will have a more or less open relation to each other, so that any amount of gas less than a full head can be let on, as may be desired.

I claim—

In ball-joints for chandeliers, the valve *I*, having a stem, *b*, wing or bar *H*, and ports *c*, connected to each other by a groove or gas-way, *e*, in the manner as described, and for the purpose set forth.

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Witnesses:

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