

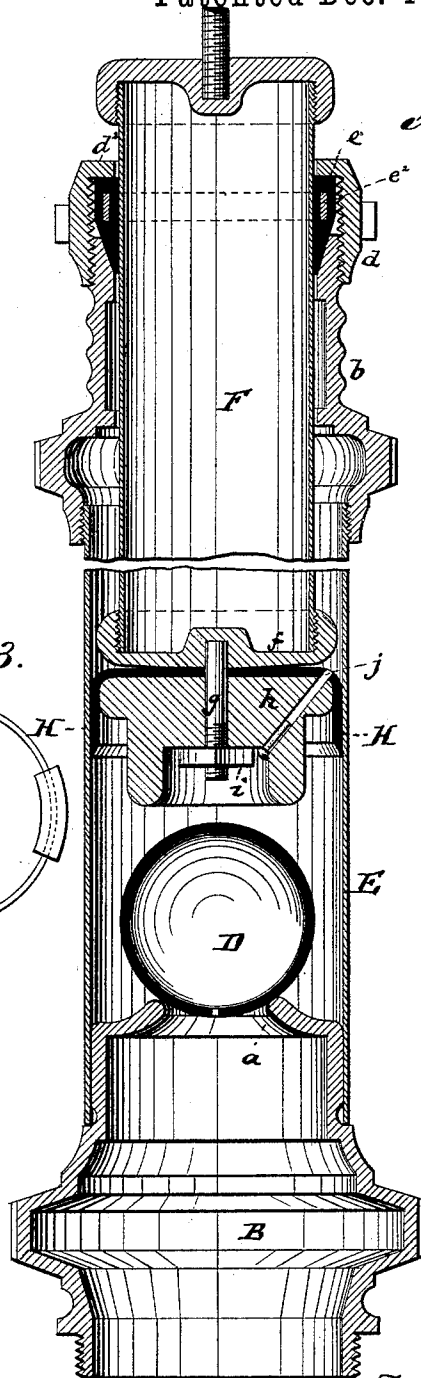
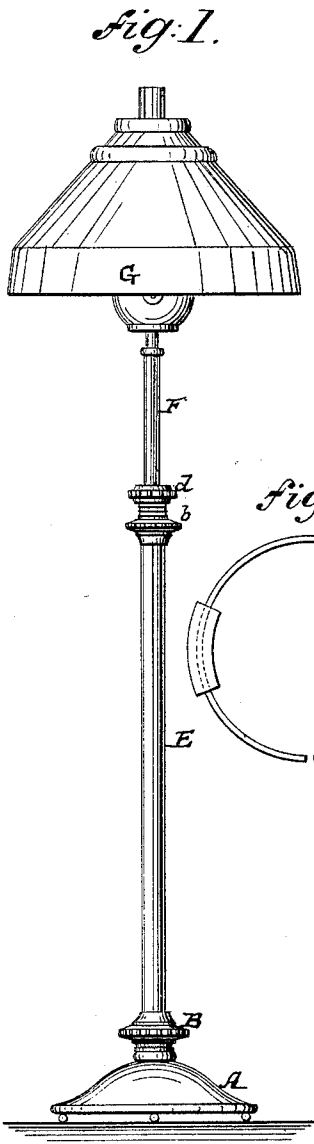
(No Model.)

T. D. STONE.

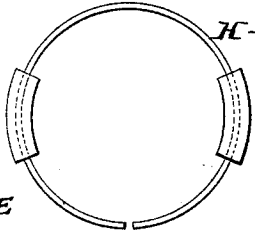
EXTENSION LAMP SUPPORT.

No. 394,224.

Patented Dec. 11, 1888.



*Fig. 3.*



WITNESSES:  
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# UNITED STATES PATENT OFFICE.

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## EXTENSION-LAMP SUPPORT.

SPECIFICATION forming part of Letters Patent No. 394,224, dated December 11, 1888.

Application filed May 9, 1888. Serial No. 273,332. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS D. STONE, a resident of the city, county, and State of New York, have invented certain new and useful  
5 Improvements in Extension-Lamp Supports, of which the following is a specification.

The object of my invention is to provide means to retard the descent of an extension-lamp when its supporting rod or tube is released to allow it to descend.

The invention consists in the details of improvement and the combinations of parts that are more fully hereinafter set forth.

Reference is to be had to the accompanying  
15 drawings, forming part of this specification, in which—

Figure 1 is a side elevation of an extension-lamp containing my improvements. Fig. 2 is a vertical central section through the supporting-tubes, taken on an enlarged scale,  
20 showing my improvements; and Fig. 3 is a detail top view of the tube-holding wedges.

In the accompanying drawings, A represents the base or foot of the lamp-support,  
25 which may be of suitable construction, and adapted to permit air to pass thereunder.

B is a tube or chamber that fits on the base A, and is provided with an internal seat, *a*, with an irregular inner edge, upon which a  
30 rubber ball, D, or other valve is adapted to rest.

E is a tube that extends upwardly from the chamber B, and carries at its upper end a coupling, *b*.

35 F is a sliding tube or rod that passes through the coupling *b* and into the tube E. The coupling *b* carries a nut, *d*, through which the tube F passes. The upper inner edge of the coupling *b* is beveled outwardly, as shown.

40 *e* are wedges or friction-blocks that fit between the beveled edge of the coupling *b* and the pipe F. The wedges *e* are preferably secured to a spring, *e*<sup>2</sup>, that passes outside of the tube F. When the nut *d* is screwed down,  
45 its internal flange, *d*<sup>2</sup>, by pressing against the wedges *e*, forces them in between the coupling *b* and the pipe F, thereby pressing them against said pipe to hold it in the desired position. When the nut *d* is raised to release  
50 the pipe F and wedges *e*, the spring *e*<sup>2</sup> acts to

move said wedges from pressing on the pipe F. At its upper end the tube F carries a lamp, G, of suitable construction and in suitable manner. At the inner or lower end of the tube F is secured a nut or cap, *f*. This  
5 cap *f* carries a bolt or rod, *g*, which passes through a block, *h*, and by means of a nut, *i*, on the bolt *g* the block *h* may be pressed against the cap *f*; but the block *h* may be held to the tube F in any other suitable man-  
60 ner.

H is a washer carried by the tube F between the cap *f* and the block *h*. This washer H is of such shape (preferably cup-like) and dimensions as to closely fill the interior of the  
65 tube E, the lower projecting edge of said washer being beveled on the inner side, as in Fig. 2, whereby the air in the tube E will act to crowd the washer against the tube E to prevent the passage of air between said washer  
70 and said tube.

This device acts as follows to prevent the sudden and destructive descent of the lamp G and its support F when the retaining-wedge *e* or equivalent catch is released: Supposing  
75 the lamp and its tube F to be in the elevated position, and it is desired to lower the same, the wedge *e* being released from holding the tube F, said tube will begin to descend, but, owing to the air contained in the tube E be-  
80 tween the tight-fitting washer H and the loosely-fitting ball D, the sudden descent of the lamp will be checked. The ball D, that rests on the seat *a*, acts as a valve to prevent the sudden exit of the air from the tube E;  
85 but this ball is so arranged with relation to the opening in the chamber B which it covers that a certain small amount of air can pass therefrom during the descent of the tube F. Thus the rapid descent of the tube F  
90 is held in check, and yet the lamp is permitted to slowly descend. The ball D also acts to prevent contact of the block *h* with the seat *a*, and is compressed when the lamp is in its lowermost position, thus preventing concus-  
95 sion. When the lamp and its supporting-tube F are elevated, air will be drawn into the tube E through the chamber B, the ball D permitting the air to pass into the tube E.

The difficulty with extension-lamps now in 100

use is that the globes and glass parts are apt to be shattered by too sudden a descent of the movable upper portion. This difficulty my invention seeks to obviate.

- 5 Instead of making the valve D fit its seat but in part and letting the air escape below it, the valve may be made tight-fitting and an air-vent provided through the plunger *h*,  
10 either by perforating or grooving said plunger, as at *j* in Fig. 2.

The tube F can be made to closely fit the interior of the tube E otherwise than by means of the cup-like washer H, if desired.

- 15 Having now described my invention, what I claim is—

1. The combination, with the pipe E, coupling *b*, having beveled upper edge, and nut *d*, of the wedge *e* and the pipe F, substantially as herein shown and described.
- 20 2. The combination of the tube E, coupling *b*, having a bevel on its upper inner edge, and nut *d*, having internal flange, *d*<sup>2</sup>, with the pipe F, wedge *e*, and spring *e*<sup>2</sup>, carrying said

wedge, said wedge being between the beveled edge of the coupling *b* and the pipe F, substantially as herein shown and described. 25

3. The combination, with the base A and the tube E, of the valve-ball D, resting upon the seat *a* without entirely closing the same, lamp-support F, and washer H, carried by 30 said support, substantially as described.

4. The lamp-support F, block *h*, and washer H, combined with the tube E, chamber B, valve-ball D, and seat *a*, substantially as described. 35

5. The extension-pipes E F, combined with a washer on the inner pipe, F, fitting the outer pipe, E, a ball-valve in the lower part of the pipe E, and an air-vent beneath the ball-valve permitting a slow and limited discharge of 40 air while the pipes are being contracted, as specified.

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Witnesses:

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