

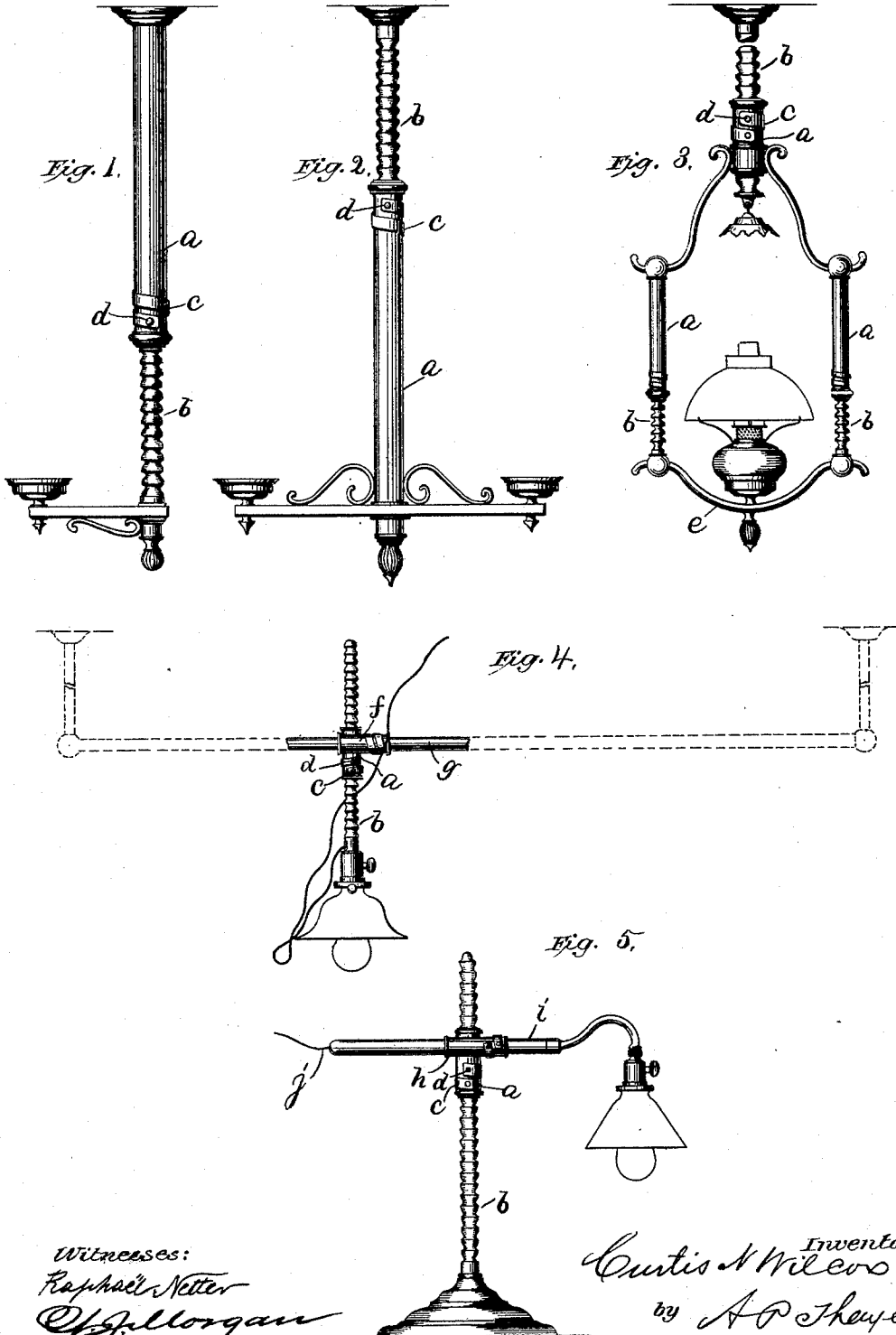
(No Model.)

2 Sheets—Sheet 1.

C. N. WILCOX.
LAMP SUPPORT.

No. 489,172.

Patented Jan. 3, 1893.



Witnesses:
Raphael Netter
Chas. J. Morgan

Inventor
Curtis Wilcox
by A. P. Thayer
Attorney

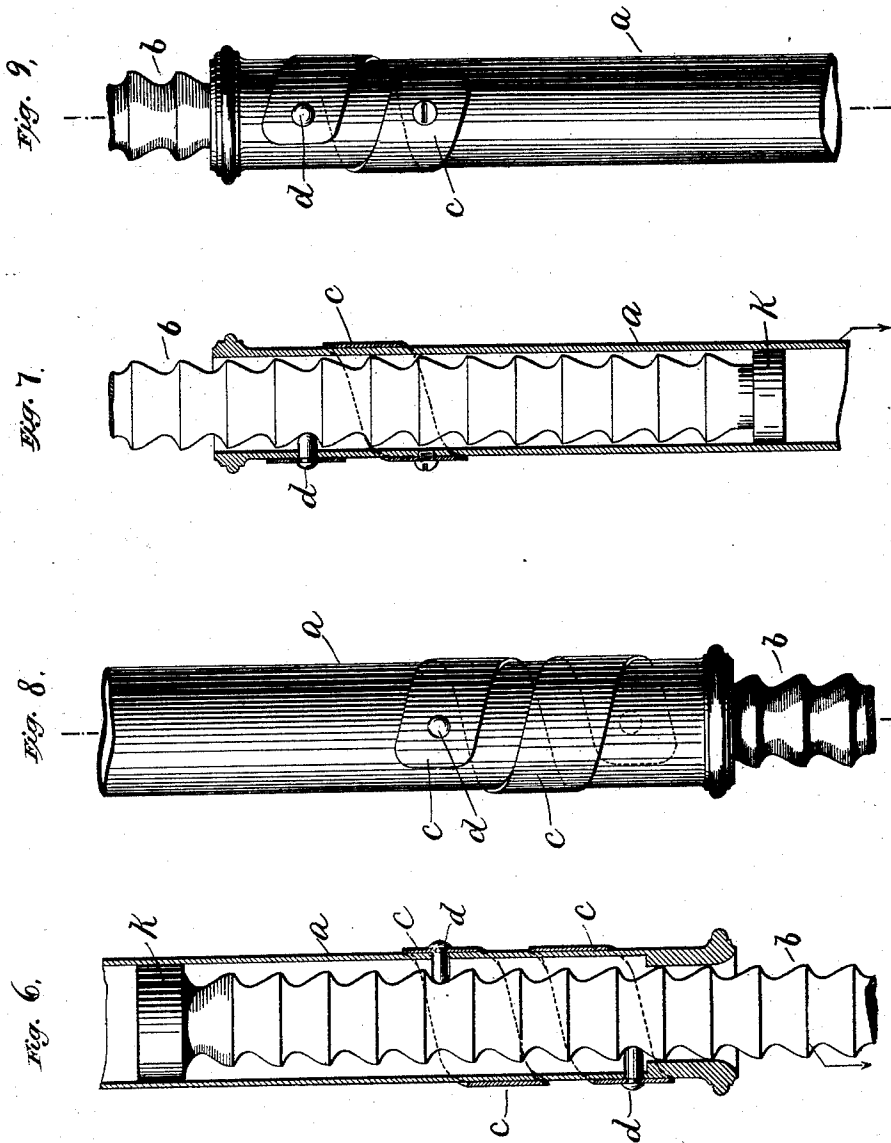
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2 Sheets—Sheet 2.

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LAMP SUPPORT.

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Witnesses:

Raphael Netter

W. J. Gilligan

Inventor
Curtis Wilcox

by A. P. Thayer

Attorney.

UNITED STATES PATENT OFFICE.

CURTIS N. WILCOX, OF BROOKLYN, NEW YORK.

LAMP-SUPPORT.

SPECIFICATION forming part of Letters Patent No. 489,172, dated January 3, 1893.

Application filed January 28, 1892. Serial No. 419,534. (No model.)

To all whom it may concern:

Be it known that I, CURTIS N. WILCOX, a citizen of the United States, and a resident of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Lamp-Supports, of which the following is a specification.

My invention consists in improved contrivances of lamp supports of various kinds and for any kind of lamps, both for vertical and lateral adjustment, as hereinafter fully described reference being made to the accompanying drawings in which:—

Figures 1, 2 and 3 represent elevations of different forms of vertically adjustable lamp supports made in accordance with my invention. Fig. 4, is a side elevation of a like vertically adjustable support also constructed for lateral adjustment. Fig. 5, a side elevation of a like vertically adjustable support with a modified form of laterally adjusting apparatus. Figs. 6 and 7 are details of the vertically adjusting apparatus in sectional elevation on an enlarged scale, and Figs. 8 and 9, are like enlarged details in side elevation.

The essential parts of the vertically adjustable support are a plain tube *a*, a circumferentially fluted or grooved rod or tube *b* of hard or unyielding material as metal, inserted in the tube *a*, and adjustable therein lengthwise in the manner of telescopic tubes, and a spring stop for securing these two parts in the positions in which they may be set, said spring stop consisting of the flat spring *c*, coiled on the exterior of tube *a*, and having one or more stud pins *d*, projecting through the tube and pressing forcibly against the inner fluted rod or tube *b*, so that when bearing in the flutes or grooves it locks and holds the movable part in position by friction. The flutes or grooves are sufficiently sloping in the sides to permit the movable part to be shifted by lengthwise thrusts of sufficient power to force the ribs or pins past one another according as it is the part *a*, or *b*, that is movable.

It is preferred to make the flutes or grooves with the side that takes effect against the stud pins in holding the shifting part against falling, more abrupt than the side up which the stud pins have to be forced in shifting the holder upward, so that the resistance of the

downward movement will be greater—in a measure about equal to the weight of the shifting part. If it is the grooved or fluted part that shifts as in Fig. 1, part of Fig. 3, and Figs. 4, 6 and 8, it will be the incline of the lower side of the ribs that will be the more abrupt, but if it is the tube that shifts as in the other figures and the other part of Fig. 3, it will be the upper side of the ribs that will have the more abrupt angle. Besides the greater security thus afforded against the falling of the movable part the force necessary to shift the movable part up or down is about equalized which is an advantage because the operator has only to accustom himself to one measure of force for shifting the part in either direction.

In Fig. 1, the tube *a*, is represented as suspended from the ceiling with the grooved or fluted part *b*, shifting up and down in it. In Fig. 2, the reverse arrangement is represented.

Fig. 3 represents a compound arrangement in which a tube *a*, is arranged to shift up and down on the grooved or fluted rod suspended from the ceiling, with branches holding other parallel tubes in which corresponding fluted or grooved rods holding the cross bar *e*, on which the lamp is mounted shift up and down.

In Fig. 4, the tube is suspended from a slider *f*, carried on a horizontal rod *g*, suspended from the ceiling or other overhead support in any approved way, the grooved or fluted rod being adjustable in the tube *a*; this affords a simple and efficient device where it is desirable to have a lamp adjustable along the support from side to side of the room.

In Fig. 5, the tube is adjustable up and down along a standing fluted or grooved rod *b*, and it carries a socket holder *h*, in which a lamp holding arm *i*, may be held in a way to be adjusted to set the lamp more or less distant from the standard; this socket is provided with a like spring stop *c*, *d*, to secure the arm *i*, in its position.

The arm may consist of a hollow tube and may have the conducting wires *j* threaded in it in the case of an electric lamp.

The fluted or grooved rod *b*, will have a head as *k*, adapted to catch on the stud pin of the spring stop and prevent the rod from escaping from the tube, said fluted or grooved

rod or tube may be constructed in any approved way, as by casting, milling, turning, spinning or by forcing out the ribs with hydraulic pressure.

5 I am aware of the British Patent No. 1,943, of 1858, in which there is a soft rubber gas tube made in the form of the grooved tube which I use, the texture being such that the tube will extend and contract lengthwise by
10 the out or in folding of the sections lengthwise permitted by the grooves for use in an extensible hanger, and I make no claim for such a device, the tube or rod which I use being necessarily non-extensible for my purpose,
15 and such soft and extensible tube being wholly unavailable for my purpose.

I claim:—

1. The improved lamp support consisting of the exterior tube, the circumferentially
20 grooved or fluted rod or tube of hard or unyielding material fitted within said exterior tube, one having a fixed position and the other adjustable along the fixed part and having the lamp attached, and the spring stop on
25 the exterior tube and adapted to bear in the flutes or grooves and lock the adjustable part substantially as described.

2. The improved lamp support consisting of the exterior tube, the circumferentially grooved or fluted rod or tube fitted within
30 said exterior tube, one having a fixed position and the other adjustable along the fixed part and having the lamp attached, one of said parts having a laterally sliding support, and the spring stop on the exterior tube and adapted
35 to bear in the flutes or grooves and lock the adjustable part substantially as described.

3. In an adjustable lamp support consisting of the exterior tube, the spring stop and the circumferentially grooved or fluted rod or
40 tube of hard or unyielding material fitted adjustably in the interior of said tube, the flutes or grooves in the inner rod or tube made with the side that takes effect against the stud pin to hold the shifting part from falling more
45 abrupt than the other side substantially as described.

Signed at New York city, in the county and State of New York, this 15th day of January, A. D. 1892.

CURTIS N. WILCOX.

Witnesses:

HENRY MORISSI,
W. J. MORGAN.