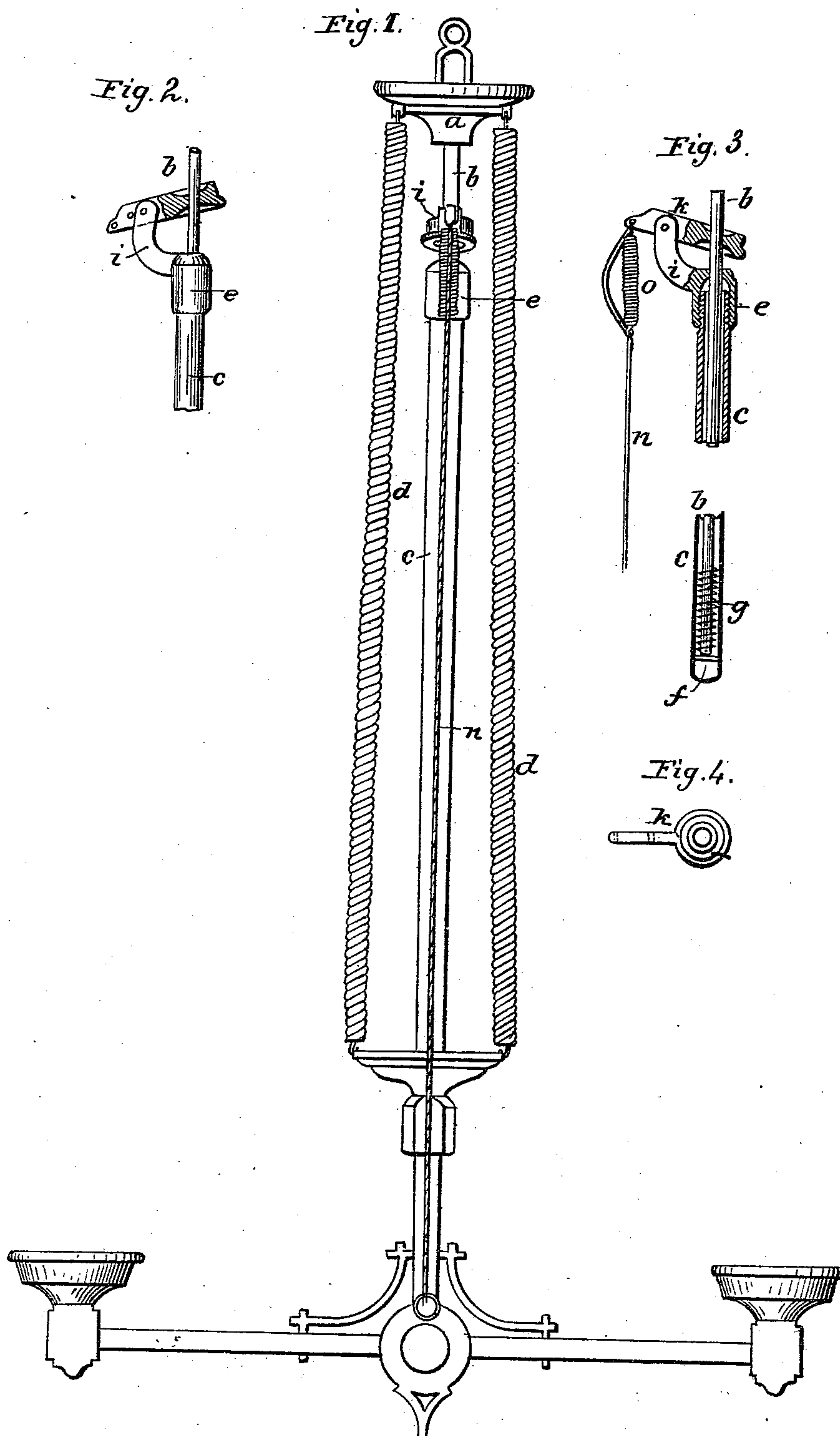


H. TUCKER.
Chandelier.

No. 93,927

Patented Aug. 17, 1869.



UNITED STATES PATENT OFFICE.

HIRAM TUCKER, OF NEWTON, MASSACHUSETTS.

IMPROVEMENT IN EXTENSION-CHANDELIERS.

Specification forming part of Letters Patent No. 93,927, dated August 17, 1869.

To all whom it may concern:

Be it known that I, HIRAM TUCKER, of Newton, in the county of Middlesex and State of Massachusetts, have invented an Improved Extension-Chandelier; and I do hereby declare that the following, taken in connection with the drawings which accompany and form part of this specification, is a description of my invention sufficient to enable those skilled in the art to practice it.

This invention relates to the means or devices employed, and to their combination and arrangement, by which a chandelier or other lamp or burner carrying apparatus, which is suspended, may be raised or lowered within reasonable extreme limits, and locked or fastened in position at either of said limits, or at any intermediate point.

The drawings illustrate an embodiment of my invention. Figure 1 shows, in elevation, a chandelier having my invention attached, by which the lower or light or burner bearing portion can be raised and lowered and locked or fastened in any desirable position between the upper and lower extreme positions. Figs. 2 and 3 show sectional views of some of the details of construction and arrangement, and Fig. 4 shows a plan of the gripe or clamp employed to hold in any desired position the movable part of the chandelier.

The chandelier shown in the drawings is one adapted for using lamp-bodies or candles; but it will be described beyond how it may be modified so as to adapt it to the use of gas.

To the pendent top piece *a* a central rod, *b*, is fixed, which is surrounded by a tube, *c*, to which tube the arms or lower part of the chandelier is attached, on which lower part provision is made to receive lamps or candles. Said lower part is connected with the top piece *a* by closely-wound spiral springs *d*, so proportioned that when the lower part of the chandelier is about midway between its extreme upper and lower positions, and the springs, in consequence, about half extended, the lower part and its burden of lamps and oil, or other burning-fluid or candles, will be nearly in a state of equilibrium.

On the upper end of the tube *c* is fitted a piece, *e*, closely surrounding the rod *b*, and guiding the tube *c* as it is made to slide up and down on the rod *b*.

The rod has a head, *f*, at its lower end, above which is placed an open coiled spiral spring, *g*, which serves as a bunter-spring, and prevents a sudden shock or jar to the chandelier when the lower part is drawn down to its lower extreme point, the spring *g* in such case being compressed between the head *f* and that part of the cap *e* fitting closely around the rod *b*.

In the lower end of the tube *c* may be placed another open-coiled bunter-spring, (not shown in the drawings,) which spring, so placed, would prevent sudden stoppage and shock to the chandelier on arriving at its extreme upper point of movement.

The piece *e* has attached to it an arm or bracket, *i*, which serves as a support or fulcrum for the lever *k*, which is pivoted to said arm, the pivot-pin passing through a slot in the lever *k*, thus allowing to the lever a slight endwise movement.

In the long arm of the lever is an aperture, so that the lever surrounds and embraces the rod *b*, the lever *k* acting as a gripe to prevent upward or downward movement of the lower part of the chandelier, according as the lever *k* is inclined upward or downward. When the lever *k* is held horizontally it ceases to act as a gripe, and leaves the lower part of the chandelier free to move up or down, as may be required. When the long arm of lever *k* is inclined upward, as seen in Fig. 2, then the gripe operates to prevent the descent of the lower part of the chandelier; and when it is in the position seen in Fig. 3, then it prevents the ascent of said lower part.

As the long arm of lever *k* is the heaviest, and inclines to gravitate downward, provision is made to keep the lever in the position seen in Fig. 2, so that when the lower part of the chandelier is above its medium position, as to height, the position of lever *k* shall not be accidentally changed, which would result in the fall or descent of the lower part of the chandelier. Said provision is as follows: In the pull *n*, which is attached to the short arm of lever *k*, by which pull the position of said lever may be shifted and controlled, is inserted a spring, *o*, which, when the chandelier has been drawn downward, and when the spring *o* has been extended and the pull secured to a pin in the lower part of the chandelier, acts, on drawing the lower part of the chandelier

slightly downward, to reverse the position of the lever from that seen in Fig. 3 to that seen in Fig. 2.

When the lever *k* is in the position seen in Fig. 2, then the chandelier is free to be moved upward, but is prevented from moving downward until such time as the lever *k* is purposely made to assume the position seen in Fig. 3.

When gas is to be burned, a gas-pipe takes the place of the rod *b* and a stuffing-box or a water-joint is arranged in the piece *e*, and the gas is caused to pass from the pipe to the burners in any manner now well known in gas-burning chandeliers.

To prevent undue extension of the spiral springs *d d* or *o*, cords may be applied, connect-

ing their ends, the cords being preferably applied within the springs, so as to be concealed somewhat thereby, and being of such length as will permit the necessary extension of the springs, said cords of course being slack when the springs are not extended or but partially extended.

I claim—

In combination with an extension-chandelier, the supporting-springs *d d* and the gripe or check lever *k*, arranged to operate substantially as described.

HIRAM TUCKER.

Witnesses:

J. B. CROSBY,
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