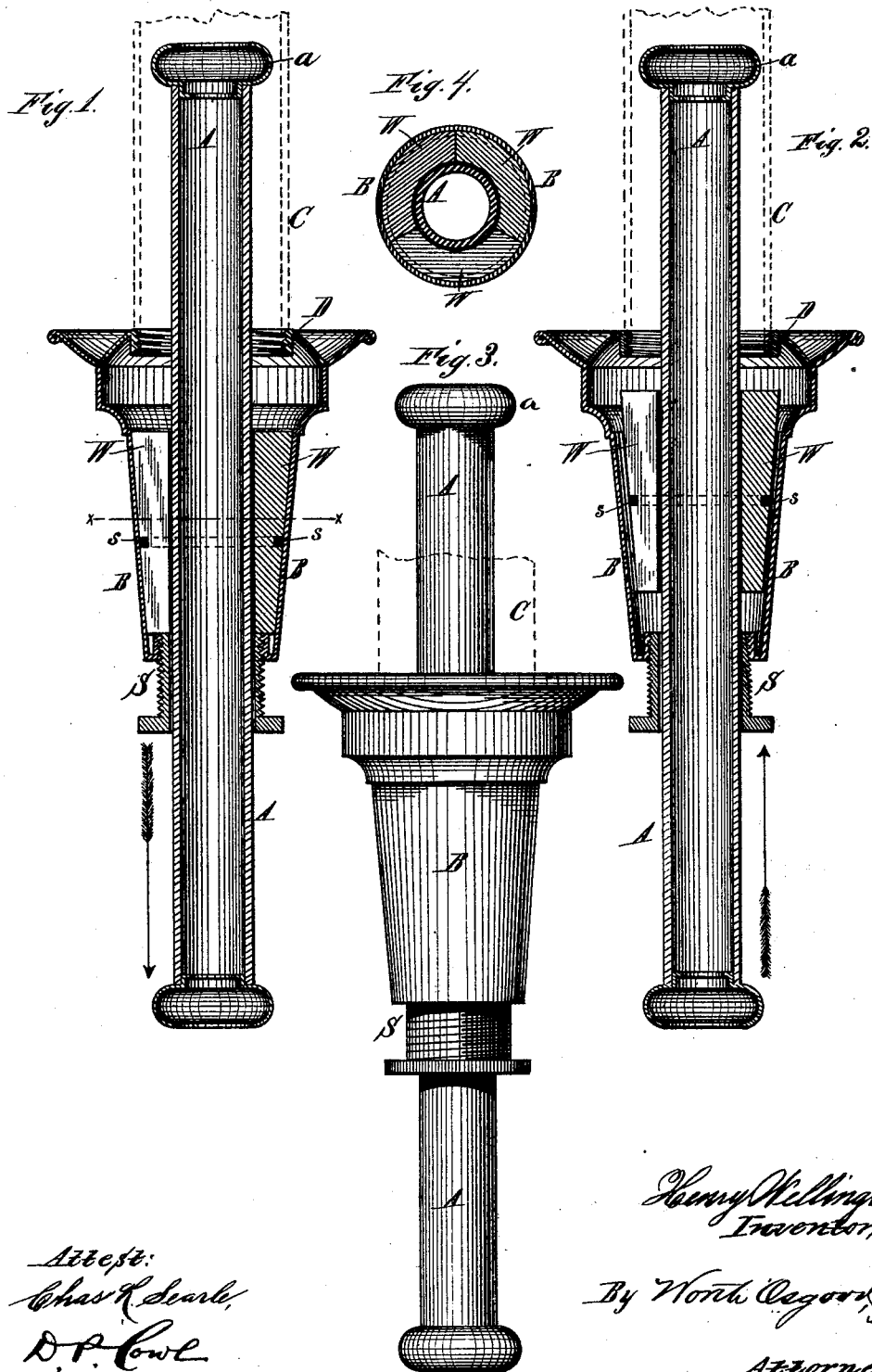


H. WELLINGTON.
Extension-Chandelier.

No. 219,884.

Patented Sept. 23, 1879.



Attest:
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UNITED STATES PATENT OFFICE.

HENRY WELLINGTON, OF GREEN POINT, NEW YORK.

IMPROVEMENT IN EXTENSION-CHANDELIERS.

Specification forming part of Letters Patent No. **219,884**, dated September 23, 1879; application filed May 26, 1879.

To all whom it may concern:

Be it known that I, HENRY WELLINGTON, of Green Point, county of Kings and State of New York, have invented certain new and useful Improvements in Adjustable Chandeliers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Figure 1 is an axial section of a device embodying all the essential features of my improvements, the retaining wedges or blocks being shown in the position which they will assume when at rest or whenever the extension-slide is being lowered; and Fig. 2 is a similar view indicating the position which these same wedges or blocks will assume when the extension is being elevated. Fig. 3 is an elevation of the improved attachment; and Fig. 4, a horizontal section upon a plane passing through line *xx* of Fig. 1.

Like letters in all the figures, wherever they occur, indicate corresponding parts.

My invention has relation to that class of attachments to chandeliers or other suspended fixtures which support an oil, gas, or other burner for illuminating purposes, and wherein the light or burner is made vertically or otherwise adjustable; and it (the invention) has for its object the production of a simple, cheap, durable, automatically-operating, and efficient sustaining device for the sliding rod or pipe, by use of which said rod or pipe may be easily adjusted either up or down, and when so adjusted be securely held at the desired elevation, and all this without necessitating the employment of any means of operating the clamping-blocks save the sliding pipe or rod itself.

To accomplish this, and at the same time to compensate for the wearing of the clamping-blocks, to regulate their frictional bearing against the sliding rod or pipe, to adjust them so as to sustain different weights of movable parts, and to insure certainty of action in connection with the sliding rod or pipe, the invention involves certain new and useful peculiarities of construction and relative arrangements or combinations of parts, all of which will be hereinafter first fully described, and then pointed out in the claims.

A is the sliding rod or pipe, upon which the suspended lamps, burners, or lighting apparatus of any kind are mounted, and this moves up and down through the conical casing, or casing having a conical or equivalently-formed interior surface, B, which in turn is suspended from the ceiling or elsewhere by the stationary pipe C. (Indicated in dotted lines.) Within casing B are placed the clamping-wedges W, two, three, or more in number, so arranged as that their vertical faces shall bear against the exterior surface of the sliding piece, and their inclined or outer faces bear against the interior inclined surface of casing B. These wedges or clamping-blocks are preferably cut long in comparison with their width, as indicated, so that their wearing effect upon the part A will be very slight, and so that the casing B may be made of graceful and pleasing form and outline. They are prevented from being forced out at the upper enlarged end of casing B by reason of the presence of the top plate, D, which is screw-threaded to receive the end of the sustaining-pipe C, and which may be connected with the walls of the casing by any suitable means. Their size and form prevent them from being drawn out through the bottom opening in said casing, which is considerably contracted beyond the limits of that in the top. The pipe A is pressed against the vertical faces of all the wedges, so that on all the points of contact there is a movable bearing, which results in uniformity of wearing and ease of motion. The wedge may be faced with any soft material, as indicated by the heavy lines.

When it is desired to move the burners or the part A downward, as indicated by the arrow in Fig. 1, it is simply pulled with the hand, the wedges being lowered, as represented, affording only a certain resistance to the downward motion, which is, however, sufficient to sustain the weight of the attachments, but only of such a degree as may be easily overcome when to this weight is added the force of the hand. When sufficiently lowered the parts will be maintained automatically in their new position.

To elevate the part A and its connections, it is forced upward with the hand, the wedges

riding up with the pipe or rod sufficiently to relieve the latter of all side pressure due to their presence. Being released, the part A and the wedges drop down only a very slight distance, when the whole are held in place the same as before the movement. Under all ordinary circumstances the weight of the wedges will be sufficient to cause them to drop down to the lowermost part of the casing and bear against the pipe or rod, when the latter is released after having been elevated, as desired; but to insure their perfect action in this respect, I surround them with a rubber or other very light spring, *s*, of sufficient tension to make them hug the pipe at all times, and therefore to move up and down with it until arrested by the bottom or top of the casing. For the accommodation of this spring I groove or furrow the outer edges of the wedges, as plainly shown and locate the spring within this furrow. This construction obviates the bearing of the spring against the casing, leaving all the surfaces of contact smooth and even or unbroken.

To regulate the pressure of the wedges against the sliding part, the bottom of the casing is provided with a hollow screw-plug, *S*, which surrounds the sliding part, and may be turned in far enough to produce a very slight compression of the pipe or rod, when it is lowered or turned out far enough to allow the wedges room to drop down with the pipe so far as to produce all the pressure required for the heaviest fixtures or attachments. By use of this regulating screw-plug the capability of the clamp to hold or maintain any weight may be nicely and very easily adjusted.

The lamps or burners, &c., are, of course, to be suitably connected with the lower end of sliding part A, and it has not been deemed necessary to represent them in the drawings, because they may be of any desired kind, and their means of connection are very well understood.

The device is specially designed for the support of oil-fixtures of the various kinds; but manifestly it may be used in connection with gas-fixtures, it being only necessary to connect a flexible or other suitable pipe with the top of pipe A and allow it, if necessary, to coil and uncoil within pipe C, after the manner of arranging some forms of gas-chandeliers.

When unconnected with any pipe from above the part A is to be provided with some sort

of stop, as *a*, so as to prevent the accidental withdrawing of this part through the casing.

Being constructed and arranged in accordance with the foregoing description, the operation of the clamp is smooth, easy, and certain, and it fulfills all the purposes and objects of the invention, as previously stated.

Having now fully described my invention, I desire to add that I am aware of previous forms of clamping or holding devices for this class of chandeliers wherein the principle of the wedge is employed to maintain the sliding parts at the required heights; but in these previous forms one of these defects has always existed: The wedges did not bear uniformly against the sliding part, or they had to be operated by a lever or rod independently of the sliding pipe or rod, or they could not be regulated to correspond with the weights of various attachments, or they failed to afford a means permitting the lowering of the attachments without first disturbing the wedges themselves. The hollow screw-plug *S*, for the adjustment of the clamping-wedges, is also known to be old in this class of devices. To these old forms I desire it understood that I make no claim; but

What I do claim as new, and desire to secure by Letters Patent, is—

1. In a sliding chandelier of the character herein specified, the combination, with the loose wedges confined within the conical casing, against the walls of which they crowd or jam, and surrounding the sliding pipe, of the contracting spring located within a groove or furrow upon the outer faces of the wedges, and causing them to travel with the pipe in its upward and downward movements, substantially as and for the purposes set forth.

2. The combination, with sliding pipe or rod A, of the casing B, sustaining-pipe C, exteriorly furrowed or grooved, wedges W W, adapted to crowd or jam against the walls of the casing, screw-plug S, spring *s*, and stop *a*, the whole being arranged to operate substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand in the presence of two witnesses.

HENRY WELLINGTON.

Witnesses:

WORTH OSGOOD,
S. W. HOLCOMB.