

(No Model.)

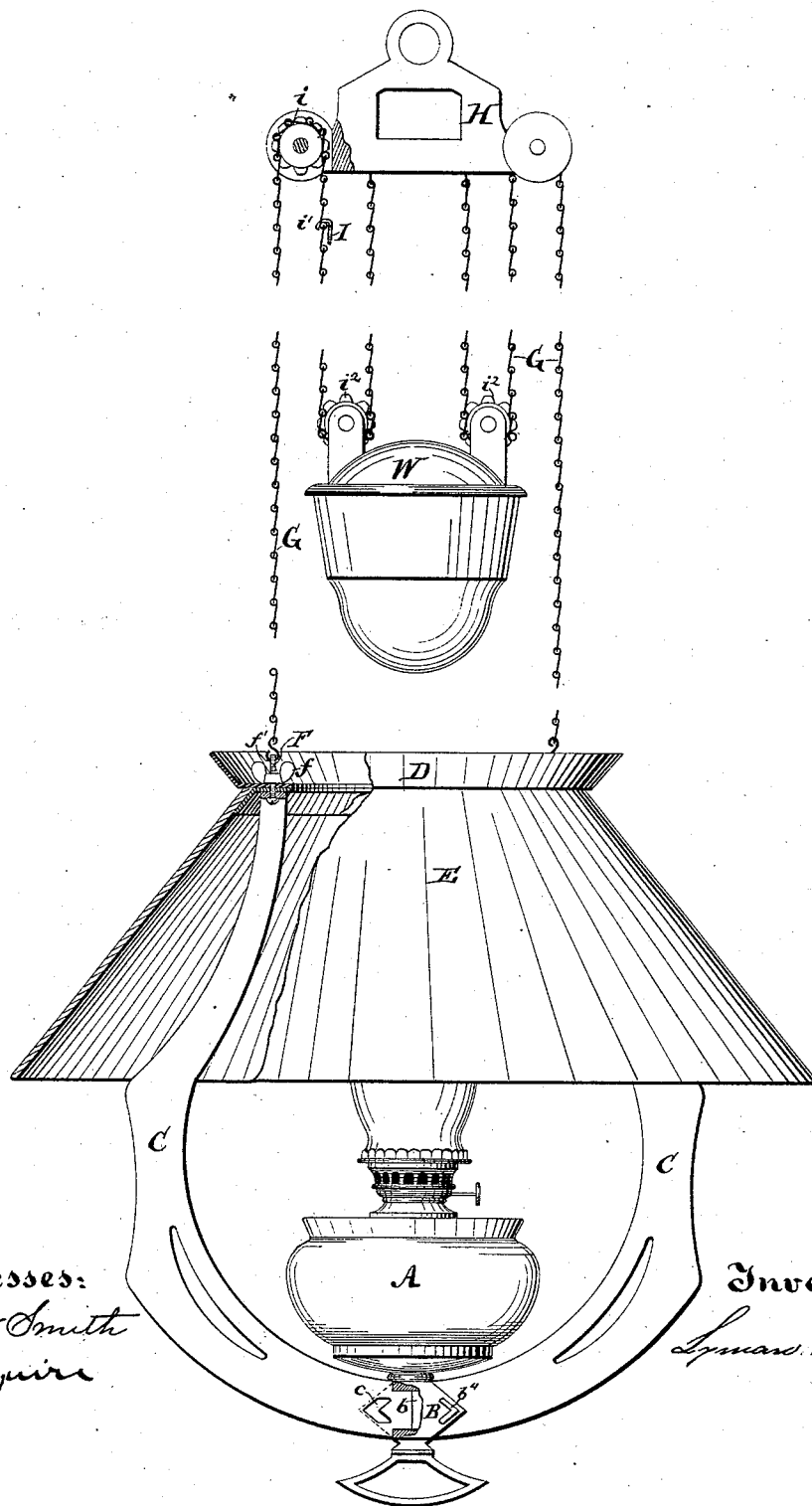
2 Sheets—Sheet 1.

L. T. LAWTON.  
EXTENSION CHANDELIER.

No. 305,010.

Patented Sept. 9, 1884.

Fig. 1.



Witnesses:  
Geo. W. Smith  
A. B. Squire

Inventor:  
L. T. Lawton

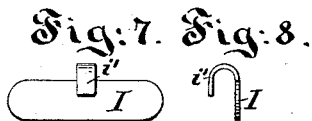
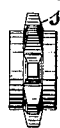
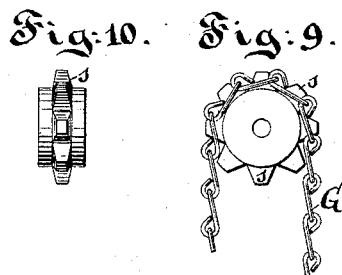
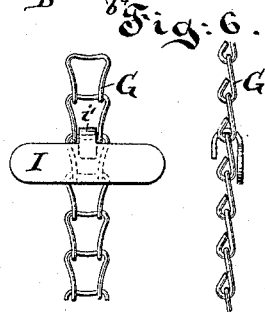
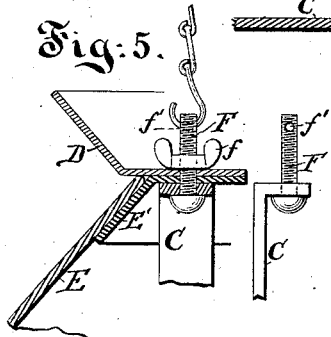
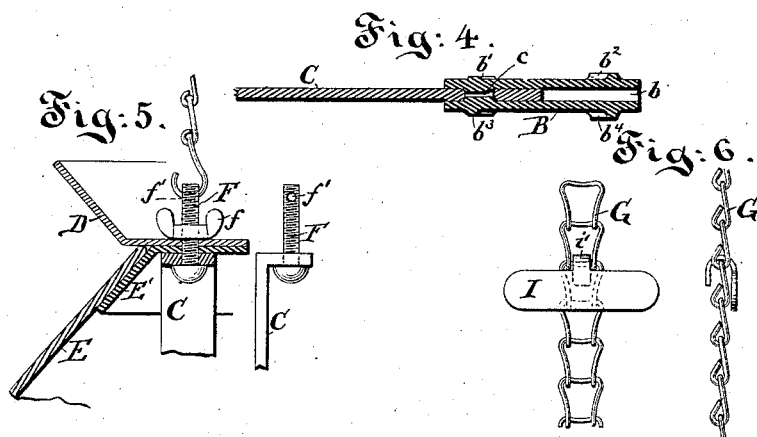
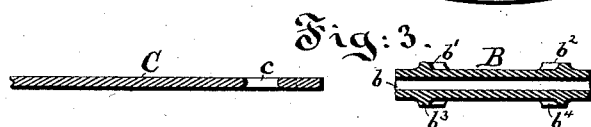
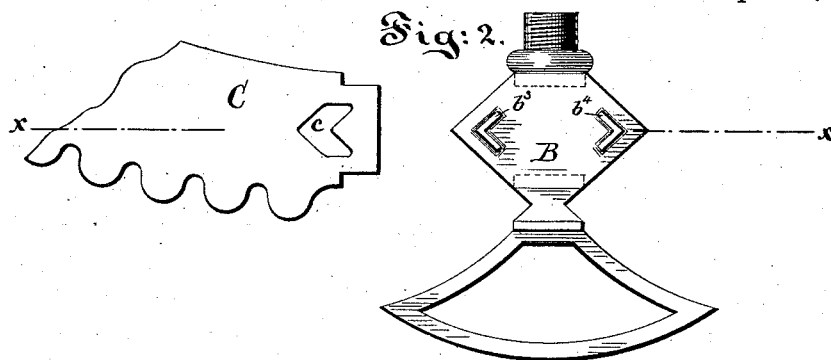
(No Model.)

2 Sheets—Sheet 2.

L. T. LAWTON.  
EXTENSION CHANDELIER.

No. 305,010.

Patented Sept. 9, 1884.



Witnesses:

Geo. W. Smith  
Atty Squire

Inventor:

Lyman, T. Lawton

# UNITED STATES PATENT OFFICE.

LYMAN T. LAWTON, OF MERIDEN, CONNECTICUT.

## EXTENSION-CHANDELIER.

SPECIFICATION forming part of Letters Patent No. 305,010, dated September 9, 1884.

Application filed September 23, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, LYMAN T. LAWTON, a citizen of the United States, residing at Meriden, in the county of New Haven and State of Connecticut, have made a new and useful invention of an Improved Extension-Chandelier, principally used for coal-oil lamps; and I do hereby declare that the following is a full, clear, and accurate description of my invention, which, when taken in connection with the accompanying drawings, will enable those skilled in the art to make and use articles embodying my invention.

My invention relates to extension-chandeliers, such as are principally used for coal-oil lamps, and in which there is a harp carrying the lamp proper, surrounded by a crown and shade, and which parts are connected by chains and pulleys to a counterbalance-weight, to enable the light to be placed at the required height, the whole being held to the ceiling by a suspending piece having in it pulleys and means for attaching it to a hook projecting downward from the ceiling.

Portions of my invention are applicable in other kinds of fixtures; but such portions can be as well illustrated with the kind of fixtures to which my invention more particularly appertains, and therefore I will so show them, but do not mean thereby to limit myself in any way.

My invention relates more particularly to the method of fastening the "harp," as it is ordinarily called, to the coupling or bottom piece of the structure, and to an adjustable stop, which may be located at any desired point upon the chain or chains, so that the distance which the light can be moved down is fixed, while this fixed point can be adjusted to suit rooms having different heights of ceiling.

In the accompanying drawings, Figure 1 represents partly in section, and with parts broken away, a side view of an extension-chandelier embodying my invention. Fig. 2 shows a view of one end of one side of the harp and the coupling-piece before being united; and Fig. 3 shows a section of Fig. 2 on the line  $x$   $x$ , looking downward. Fig. 4 shows a like section, showing one portion of the harp as united to the coupling-piece. Fig. 5 shows a view in

section of the upper end of one of the harp-pieces, the crown, screw, nut, and chain attached to said screw. Fig. 6 shows a front and side view of a portion of the chain having my stop applied thereto. Fig. 7 is a back view of the stop itself, and Fig. 8 an end view. Fig. 9 shows one of the pulleys which I employ in my fixture, and Fig. 10 shows an edge view of one of the pulleys without the chain.

Like letters are used in the several figures.

I will first describe that portion of my invention which relates to the securing of the side pieces of the harp to the coupling-piece.

Referring to Fig. 1, A is the lamp. B is the coupling-piece. C C are the side pieces of the harp. D is the crown, to which the pieces C C are attached at their upper ends. The shade E is shown as held by the ring E'; but other means may be adopted for this purpose. The pieces C C are usually made of thin metal struck up, and the coupling-piece B is usually of cast metal. It is desirable that these parts be secured together firmly, and by the simplest and cheapest means possible, and soldering, riveting, screwing, &c., are very expensive. My method consists in casting the coupling-piece B with a slot through it, as shown at  $b$ , into which the lower ends of the pieces C C can enter. On the outside of the key are cast projecting lugs  $b'$   $b''$   $b'''$   $b^4$ , preferably ornamental in shape, as shown. The lower ends of the pieces C C, which penetrate the slot  $b$  in the coupling-piece B, are provided with openings  $c$   $c$ , or depressions, which, when the parts are in position, come between the projecting lugs  $b'$   $b''$  and  $b'''$   $b^4$ . When the parts are properly adjusted, as shown in Fig. 1, so far as the pieces C C and B are concerned, the projecting lugs are by a suitable blow or pressure forced together, as shown on one side of Fig. 4, and the metal at the point where the projecting lugs are is forced into the opening or depression  $c$  in the pieces C C, and a tight union is made cheaply and readily, while the appearance of the parts is not injured. It is intended that the projecting lugs should stand out in relief, beyond all the portions of the coupling-piece B, before they are pressed into interlocking contact with the harp-pieces C C, so that the parts may be united by

squeezing them in a press. Though this is the best plan, it is not absolutely necessary. The upper ends of the harp-pieces are fastened to the crown D, and the chains may be attached, which is accomplished by attaching the pieces C to the crown D by screws, one of which is shown at Fig. 1, and an enlarged view of which is shown at Fig. 5. The screw F passes through the flanged end of the piece C and the flange or lug of the crown D, and the thumb or other nut, *f*, is screwed down to hold the parts together, the shank of the screw projecting upward for a sufficient distance, and being provided with a hole, *f'*, through which the last link of the chain G passes and is secured.

In chandeliers of this class it is desirable to place a stop upon the chains, or upon one of them, to keep careless people from drawing the harp, lamp, &c., too low down. This has usually been accomplished by permanently fixing upon one or both of the chains a stop-piece which came in contact with the upper portion, H, of the device, when the harp, lamp, &c., had been pulled down low enough. As ceilings in houses vary in height, it is desirable that some adjustable stop be provided which could by the purchaser be placed upon the chain at a suitable place, depending in each instance upon the particular situation in which he desired to use the fixture. This portion of my invention consists of a stop-piece, I, which is broad enough when placed across the chain to catch upon both sides of the slot in which either of the pulleys *i i* are located in the piece H. The stop-piece I is provided with a projecting lip, *i'*, which is turned over, as shown in Fig. 8. After the piece is stamped out flat, and which lip is narrow enough to enable it to be hooked into any one link of the chain G, as shown in two positions at Fig. 6, the person purchasing the fixture can readily hook the stop-piece into any link of the chain which he may find suited to the particular situation in which he wishes to use the lamp, and when once hooked in place it furnishes a perfect stop to limit the downward movement of the harp, lamp, &c.

Fig. 1 shows the stop-piece I in position, and Fig. 6 shows the same thing in two views enlarged.

I am aware of the patent of D. T. Hubbell, No. 64,319. This patent shows nothing but a catch to hold the lamp in any fixed position desired against the action of a spring, which constantly tends to raise the lamp to its highest position.

I am also aware of the patent to Parker & Griswold, No. 282,028, in which stops are shown upon a chain; but which stops are described as not being capable of being detached and attached to the chain at will and at different portions thereof.

In my fixtures there may be two, four, or more pulleys over which the chains G pass. My improved chandelier is cheaper to make, more convenient in use, and more regular in its movement than any which have hitherto been made.

I am aware of Patent No. 128,106, granted to Charles Brombacher. This patent shows nothing but a soldering-iron attached to a handle. It does not show a coupling-piece, or devices to be attached thereto, in the shape of harp-pieces or the like. The Brombacher soldering-iron and handle are attached by forming the iron with a recess in it, and the handle or rod with two depressions in it, and the parts are then united by driving portions of the iron into the recesses made in the handle or rod, so that a union is effected. I make no claim to what is shown and described in this patent.

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

1. The combination, in a chandelier, of a coupling-piece having projecting lugs on its outer surface adapted to be driven inward, and devices to be attached thereto, which are formed to receive the driven-in portions of the coupling-piece, substantially as described.

2. In an extension-chandelier, the combination, with a movable counterbalance-weight and a lamp, harp, crown, &c., of chains which connect the movable portions, and which pass over pulleys in a fixed portion of the device, and a stop or stops which are supported by and adapted to be placed at different positions upon the said chain or chains, substantially as herein described.

3. In an extension-chandelier having chains to connect the movable portions thereof, a stop or stops carried by the chain or chains, which are adapted to be attached at will in any position upon the said chain or chains, substantially as herein described.

4. The combination, in an extension-chandelier, of a chain or chains having cross-bar portions, substantially as shown, and an adjustable stop having a lip which can catch upon the cross-bar portions of the chains, and which lip is formed from a portion of the stop itself, all so arranged that the stop may be placed and secured at will to any desired portion of the chain, substantially as described.

5. A stop to be used in connection with the chain or chains of extensible chandeliers, which is struck up from a sheet of metal, and which has a lip formed and turned thereon adapted to catch upon the chain or chains, substantially as herein described.

LYMAN T. LAWTON.

Witnesses:

GEO. W. SMITH,  
A. B. SQUIRE.