J. W. CARTER.
Extension Chandelier.

No. 199,183. Patented Jan. 15, 1878.

Fig. 1.

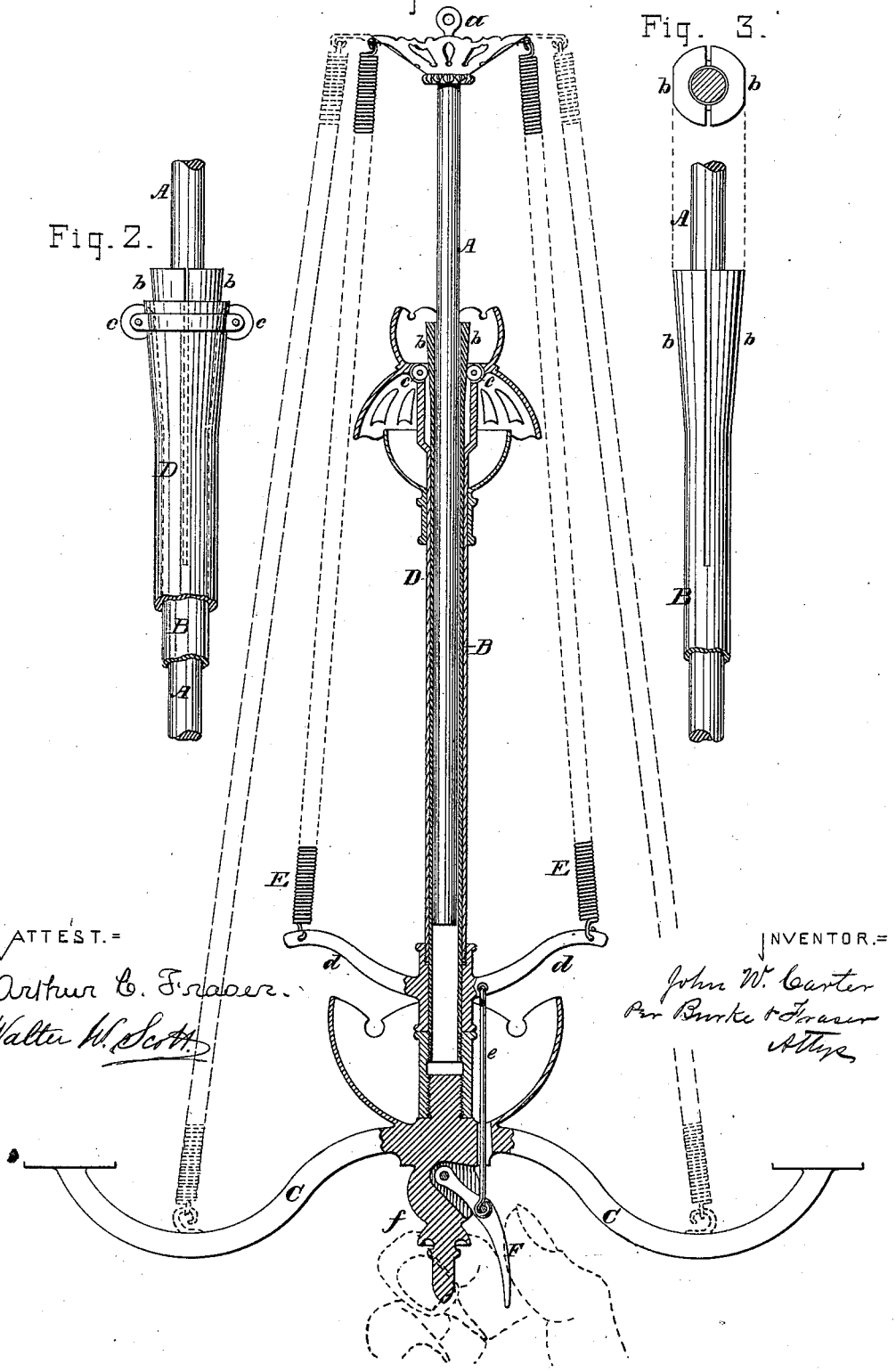

Fig. 2.

Fig. 3.

ATTEST.=
Arthur C. Fraser.
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UNITED STATES PATENT OFFICE.

JOHN W. CARTER, OF BROOKLYN, NEW YORK, ASSIGNOR TO JOHN W. CARTER, JR., OF SAME PLACE.

IMPROVEMENT IN EXTENSION-CHANDELIERS.

Specification forming part of Letters Patent No. **199,183**, dated January 15, 1878; application filed December 22, 1877.

To all whom it may concern:

Be it known that I, JOHN W. CARTER, of Brooklyn, in the county of Kings and State of New York, have invented certain Improvements in Extension-Chandeliers, of which the following is a specification:

This invention relates to that class of chandeliers which are capable of adjustment to different heights, and of being fixed at the desired point by means of a clamping device; and the invention consists partly in the construction and arrangement of the clamping device, partly in the mechanism for releasing it, and partly in combinations of the various parts, all as will be more particularly hereinafter set forth.

In the drawings, Figure 1 is a sectional elevation of my improved chandelier. Figs. 2 and 3 are detail views, somewhat enlarged, arranged to show the construction of the clamp.

A represents a rod, or it may be a tube, provided with a ring or hook, *a*, by which it is or may be suspended from the ceiling. Surrounding this rod, and fitting it closely, is a tube, B, to which are attached the branches C C, that support the lights or burners. The upper extremity of this tube is split, (see Fig. 3,) and coned on the outside, as shown. The two opposite faces *b b* of the coned extremity should be flattened. D is an outer tube, which surrounds and snugly fits the tube B. This tube D is somewhat enlarged at its upper extremity, (see Fig. 2,) and in it are mounted two friction-rollers, *c c*, which rest in contact with the faces *b b* of the coned part of the tube B.

By referring especially to Fig. 2, it will be readily understood that when the tube B (bearing the branches) is drawn down, its coned head will, if properly made, clamp tightly upon the rod A from being wedged between the rollers *c c*. When pushed up again, or, what is equivalent, the tube D pulled down, the elasticity of the split tube causes it to release its hold upon the rod. The weight of the lamps, branches, &c., is thrown on the clamp in such a way as to draw it down into the outer tube, and thus gripe the rod inside. E E are spiral springs, as commonly used in extension-chandeliers. These may be attached at their lower ends to projections *d d* on the tube D, or to the chandelier itself, or its branches, as shown in dotted lines.

The releasing device consists of a connecting rod, wire, or chain, *e*, or their equivalent, which is linked to some part of the tube D at its upper end, and extends down to or below the branches, where it is linked to a thumb-lever, F, which has a fulcrum in or on some part of the tube B, or the attachments thereto.

In the construction shown, the lever F is pivoted or fulcrumed in a cavity within a drop or knob, *f*, below the burners, and this knob serves as a resistance, being clasped by the fingers, as indicated in dotted lines, while the thumb presses the lever.

It is obvious that a downward or inward pressure on the thumb-lever will tend to draw down the tube D and lift up the tube B, thus releasing the clamp on the rod A, and permitting the lights or burners to be raised or lowered at will.

When the thumb-lever is released the weight of the parts draws down the tube B, while the springs E E tend to lift the outer tube, thus clamping on the rod again.

Although here shown as adapted to burning oil, the rod A might be a pendent gas-pipe, and be packed at its lower extremity to fit gas-tight in the tube B, thus adapting it to gas as well.

The play of the tubes B and D on each other may be limited in any convenient way.

I claim—

1. The combination, in an extension-chandelier, of the suspended plain rod A, the tube B, surrounding said rod, and having a conical slit head, and the tube D, surrounding the tube B, and provided with friction-rollers *c c*, to impinge on the coned portion of the same, all arranged as set forth, to form a clamping device, for the purpose specified.

2. The combination, in an extension-chandelier, of a plain tube or rod suspended from the ceiling, a tube surrounding and sliding thereon, carrying the branches, and provided with a split conical head, and an outer inclosing-tube surrounding and sliding upon the last-named tube, and provided with friction-

wheels arranged to impinge upon the split coned head of the inner tube, and press it against the rod, substantially as set forth.

3. The combination, in an extension-chandelier, of the rod A and tubes B D, provided, as set forth, with the connecting-rod *e*, or its equivalent, and the thumb-lever F, all constructed substantially as herein set forth.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

JOHN W. CARTER.

Witnesses:
SAM. TRO. SMITH,
HENRY CONNELL.