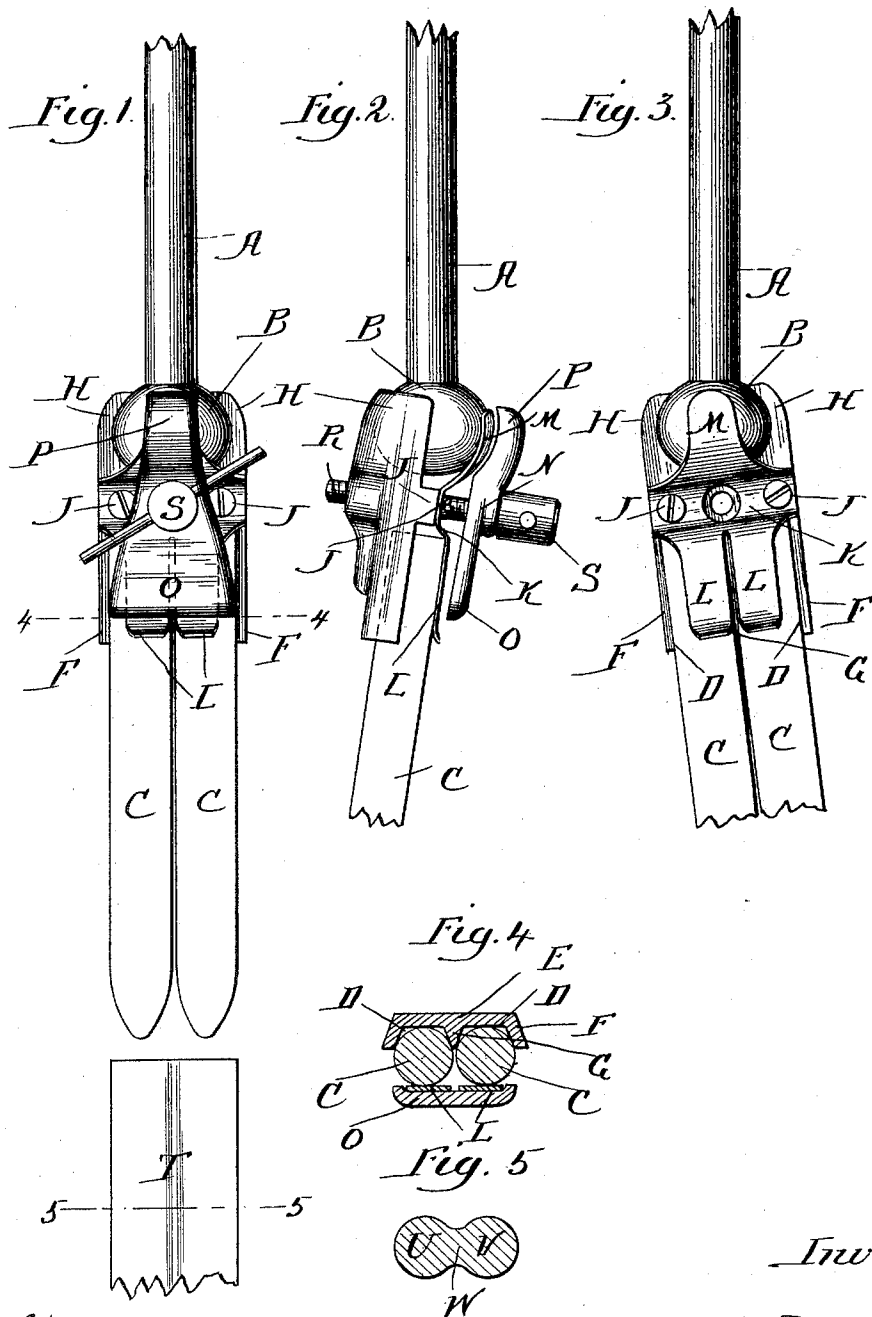


(No Model.)

S. P. PARMLY.
CARBON HOLDER FOR ARC LAMPS.

No. 468,411.

Patented Feb. 9, 1892.



Witnesses:

Celeste R. Chapman
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UNITED STATES PATENT OFFICE.

SAMUEL P. PARMLY, OF CHICAGO, ILLINOIS.

CARBON-HOLDER FOR ARC LAMPS.

SPECIFICATION forming part of Letters Patent No. 468,411, dated February 9, 1892.

Application filed September 30, 1890. Serial No. 366,627. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL P. PARMLY, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Arc Lamps and Carbon-Holders Therefor, of which the following is a specification.

My invention relates to holders for carbons of arc lights, and has reference particularly to such holders as are employed in the case of arc lights with two or more upper carbons suspended from a single rod.

It is illustrated in the accompanying drawings, wherein—

Figure 1 is a front view of a triple-carbon lamp, showing only the carbons in position. Fig. 2 is a side view of same. Fig. 3 is a front view of the upper-carbon holder with the permanent clamp removed. Fig. 4 is a cross-section on the line 4 4, and Fig. 5 is a cross-section on line 5 5.

Like parts are indicated by same letter in all figures.

A is the upper-carbon rod, provided at its lower end with the enlargement B, preferably globular.

C C are the two upper carbons, adapted to be received into grooves D D in the body E of the holder. This body is provided with a side ledge F F and middle rib G, between which said grooves are formed. They are preferably made of flat surfaces, which meet each other at angles, but might be arc shape in cross-section to receive the cylindrical carbons, or might be made to conform to the shape of the carbons.

On the body E are provided the upwardly-projected arms H H, inwardly curved so as to engage the enlargement on the end of the rod. Secured upon the body on the standards J J is the temporary clamp K, composed of the lower spring clamping-plates L L and the upper curved overhanging clamping-plate M, which, together with the arms H H, secures the body of the holder to the enlargement on the rod. The temporary clamp K is secured on the body. The clamping-plates L L lie respectively over the grooves D D. The permanent clamp N is provided with a lower projection O, which lies above the spring-plates L L, and the upward projection or over-

hanging arms P, which lie above the portion M of the temporary clamp K. The permanent clamp is adjustably secured in position by means of the screw-bolt R, which passes through both clamps and the body of the holder, and by the thumb-piece S, rigid on the end of such screw-rod and exterior to the permanent clamp.

The lower-carbon sheet is indicated by the letter T, and is preferably composed of the sections U and V, joined by bridge or web W.

The use and operation of my invention are as follows: In applying carbons to lamps where two carbons are used with the upper-carbon holder it will be seen that there is more difficulty in bringing the two carbons in proper relation to each other and then in proper relation to the lower carbon or carbons than where but a single is used above. These difficulties are of considerable moment, since the lamps are used by persons not particularly skilled in the manipulation of machinery, and they are greatly overcome by the means exhibited in my drawings. By the devices illustrated it is possible to suspend the upper carbons on the enlargement of the upper-carbon rod, so that they will have freedom of movement with reference to the axis of the upper-carbon rod, as indicated in Figs. 2 and 3. Before bringing the parts into a permanent relation it is desirable that the carbons should be capable of independent adjustment, which is accomplished by means of the grooves and what I have called the "temporary clamp" K. It is also desirable that the relation between the parts should be first fixed in a temporary manner or so as to admit of movement, the one upon the other, before they are permanently secured together. The carbons are pushed up into their respective grooves, where they are supported each independently by its clamping-plate L. They may then be moved in their grooves. In the meantime the engagement of the upwardly-curved arms H H and N with the enlargement B will temporarily support the carbon-holder and carbons upon the rod, but in such manner as to permit of the free movement of the holder and carbons with reference to the rod. When the parts have finally been brought into the proper position, the permanent clamp of metal is screwed down forcibly upon the

various parts of the clamp K, so as to permanently fasten the carbons in their respective grooves and the carbon-holder to the rod in the proper position. Thus it will be seen that
5 there is an independent support for both of the carbons, and that this support is of such a nature as to permit the movement of either; that the carbon-holder is supported upon the rod so as to be easily capable of movement;
10 that there are means for rigidly securing the holder to the rod and the carbons to the holder, and that there is a device whereby the holder may be rigidly fixed to the rod and the carbons be rigidly fixed to the holder by
15 a single operation, so as to fix them at once in their relative positions.

The lower carbon, as hereinbefore illustrated, is of a sheet or strip of material of substantially the same diameter in one direction as the upper carbons and of substantially the same diameter in the other direction as the distance between the outer surfaces of the two upper carbons.
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I claim—

1. The combination of a carbon-rod with a 25 carbon-holder, the two connected by a swivel-joint, said carbon-holder provided with two channels and a thin separating-rib, so as to receive two carbons side by side, and a clamp to simultaneously grasp and hold the two carbons in position. 30

2. The combination of a carbon-rod with a carbon-holder, the two connected by a swivel-joint, said holder provided with two channels and a thin separating-rib, so as to receive two carbons side by side, a temporary or spring clamp for each of the carbons, and a single permanent clamp for both of the carbons, so that either may be independently adjusted, but both may be simultaneously locked 40 in a fixed relation.

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Witnesses:

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