(No Model.)

R. D. TACKABERRY.

PLIERS FOR TRIMMING ELECTRIC ARC LAMPS.

No. 546,361. Patented Sept. 17, 1895.

Fig. 1.

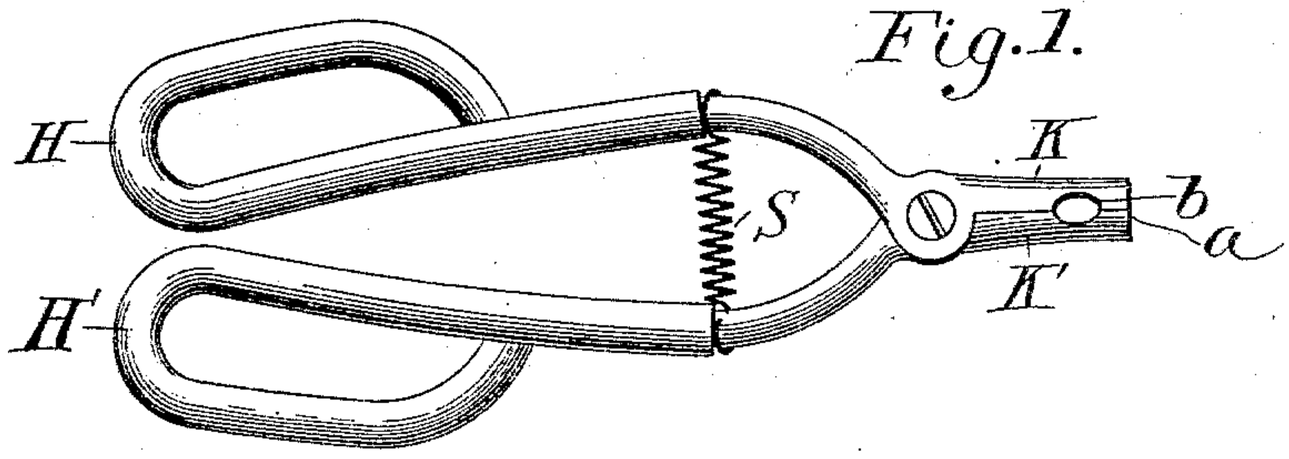


Fig. 2.

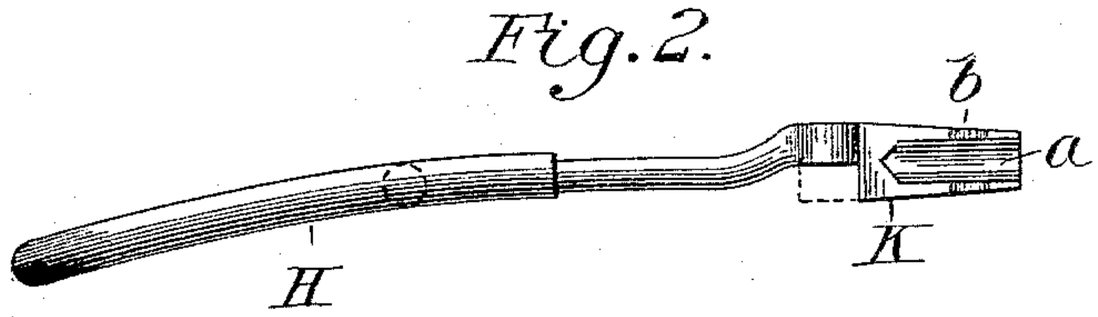


Fig. 3.

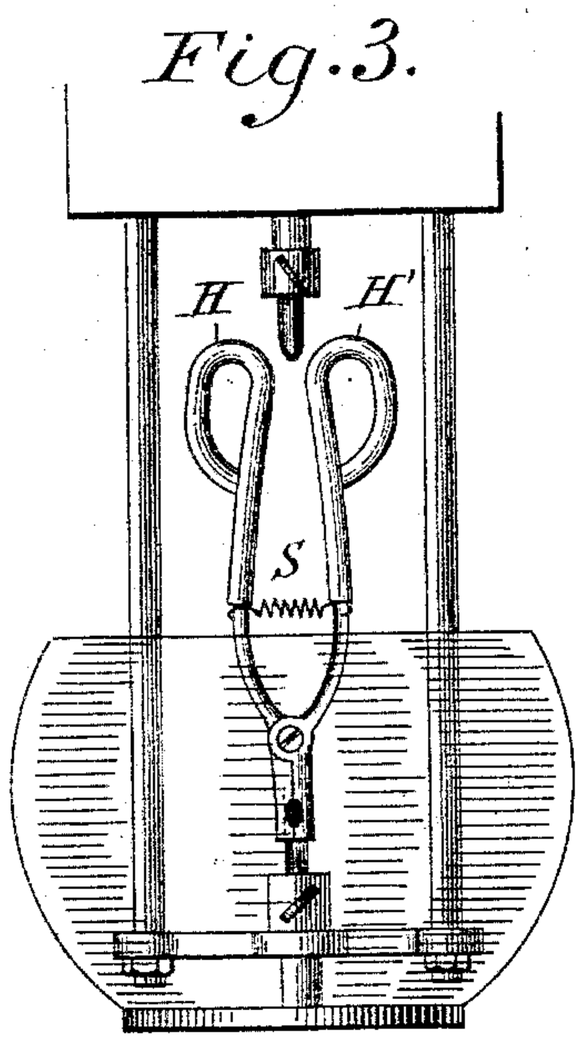
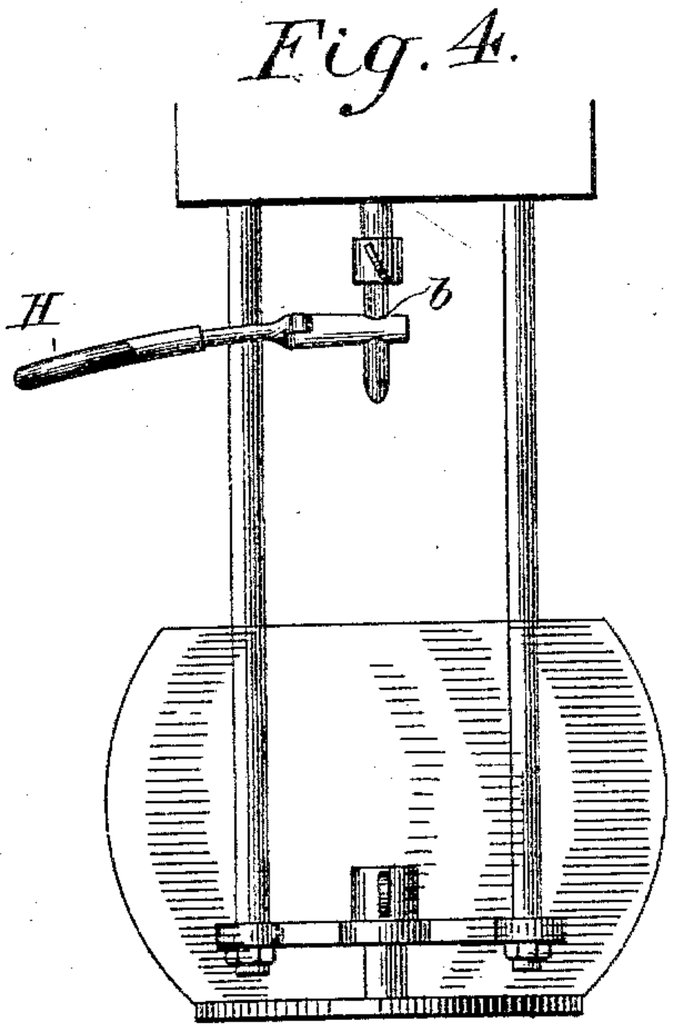


Fig. 4.



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UNITED STATES PATENT OFFICE.

ROBERT DANIEL TACKABERRY, OF LEWISTON, MAINE.

PLIERS FOR TRIMMING ELECTRIC-ARC LAMPS.

SPECIFICATION forming part of Letters Patent No. 546,361, dated September 17, 1895.

Application filed September 26, 1894. Serial No. 524,199. (No model.)

To all whom it may concern:

Be it known that I, ROBERT DANIEL TACKABERRY, a citizen of the United States, residing at Lewiston, in the county of Androscoggin and State of Maine, have invented certain new and useful Improvements in Pliers for Trimming Electric-Arc Lamps, of which the following is a specification.

In trimming arc lamps it is often necessary to remove the carbon stubs while still hot and liable to burn the bare hands. There is also a danger from accidental shock to be guarded against. Further, it is often a great advantage to be able to do the work with one hand and have the other free for other uses.

The object of my invention is to provide a tool with which both carbons can be removed without removing the globes and with the least possible trouble or danger.

In the accompanying drawings, Figure 1 is a view of the complete device. Fig. 2 is a side view of one of the similar halves. Fig. 3 shows the mode of using my device to remove the lower-carbon stub. Fig. 4 shows it in use for handling the upper carbon.

In the drawings, H H′ are the insulated handles, which are bent, as shown in Fig. 2, for reasons hereinafter given.

K K′ are the jaws.

S is a spring which acts to pull the jaws together.

a is a lengthwise cavity which fits against the side of the carbon when the device is used as in Fig. 3. This cavity should have a cross-section fitting it to grasp the carbons used, and I prefer that this cross-section should be, as indicated in Fig. 2, hexagonal rather than circular, as it will then fit itself to a great variety of shapes and sizes, and the length of this cavity should equal that of the dangerously heated part of the carbon stub, so that the jaws will completely inclose it and protect the lamp-trimmer's hand as it is moved down to turn the carbon-clamping screw.

b is a crosswise opening between the jaws K K′, which fits about a carbon in the way shown in Fig. 4.

When I wish to use my invention, I first slide the upper-carbon holder up out of the way. I then spread apart the handles H H′ and slip the jaws K K′ over the carbon stump. Upon releasing the handles H H′ the spring S pulls them together and holds the jaws K K′ against the carbon with a steady pressure, as shown in Fig. 3. The hand holding the pliers, while still keeping control of them, is now slipped down far enough to turn the screw which keeps the carbon in the carbon-holder. The carbon stub may now be lifted and carried about by taking hold of either of the handles H H′, and may be dropped into any receptacle by spreading these handles apart.

It will be seen that by bending the handles H H′ backward, as shown in Fig. 2, I keep both the handles and the hand holding them back out of the line of sight of the trimmer when he is adjusting the jaws upon the carbon stub.

When I wish to remove the upper carbon, I hold the pliers horizontally, and opening the jaws K K′ slip them about the carbon and permit the spring to pull them together. They will then seize the carbon, as shown in Fig. 4, and remain closed upon it as long as wished.

When I wish to adjust the carbons when the lamp is burning, I take hold of the insulated handles H H′, and taking the upper carbon in the cavity *b* between the jaws K K′ loosen its holding-screw and bring it into line.

Having now fully described my invention, what I claim, and desire to secure by Letters Patent, is—

In pliers for trimming arc lamps a pair of jaws, a spring acting to hold them closed upon the carbon, longitudinal grooves in the jaws which have a cross section adapting them to seize and inclose a carbon, and a length corresponding to that of its heated portion, and transverse grooves which are adapted to seize and hold a carbon; all combined with each other as and for the purposes set forth.

ROBERT DANIEL TACKABERRY.

Witnesses:
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