

No. 709,278.

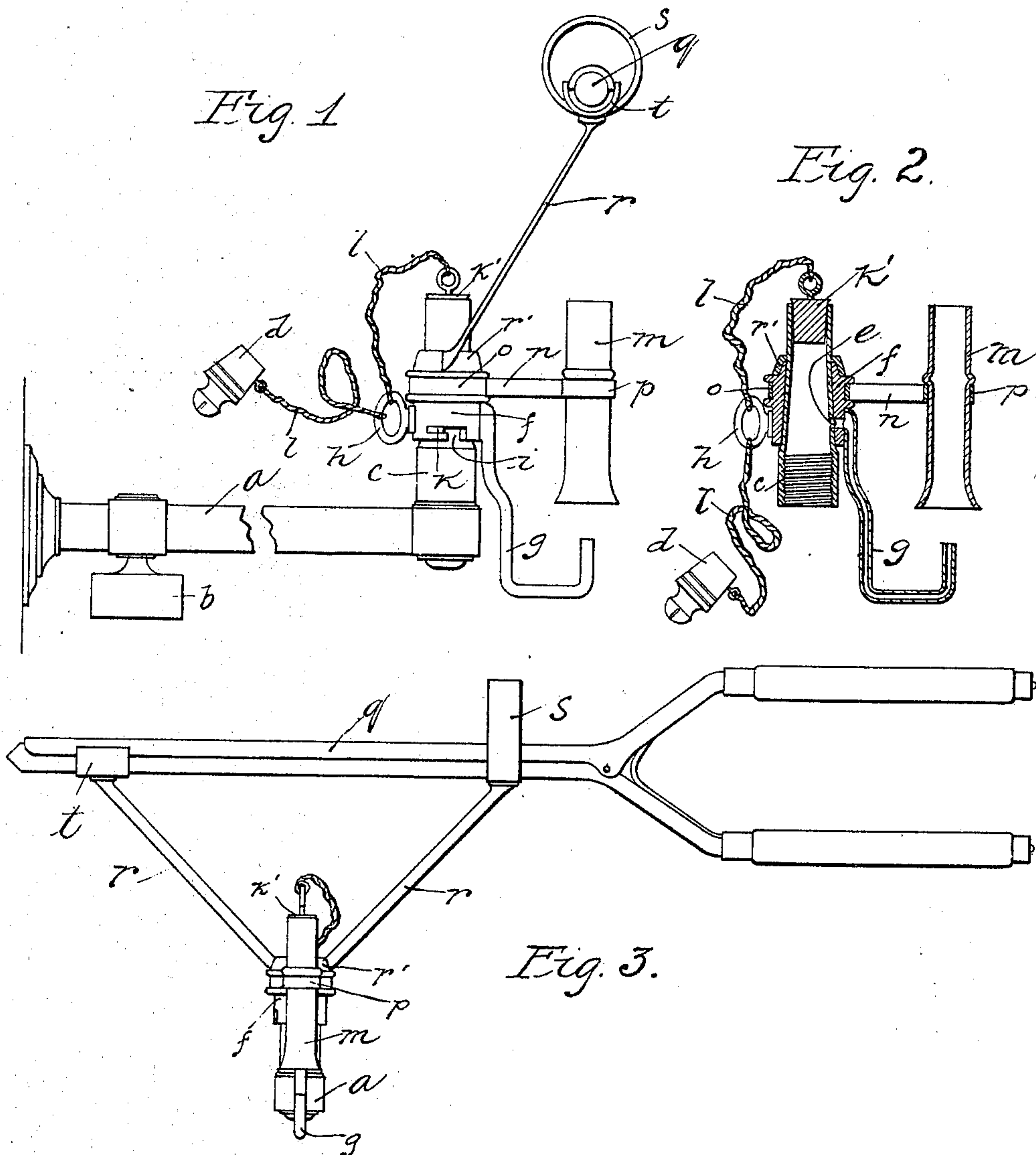
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BURNER ATTACHMENT.

(Application filed July 24, 1901.)

(No Model.)



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UNITED STATES PATENT OFFICE.

THOMAS L. ROY AND THOMAS MARSHALL, JR., OF CHICAGO, ILLINOIS.

BURNER ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 709,278, dated September 16, 1902.

Application filed July 24, 1901. Serial No. 69,536. (No model.)

To all whom it may concern:

Be it known that we, THOMAS L. ROY and THOMAS MARSHALL, Jr., citizens of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Burner Attachments, (Case No. 1,) of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

Our invention relates to burner attachments, and is particularly adapted for use in heating curling-irons.

Our object is to devise a burner that will be very compact in form and which will permit of the ordinary use to which a gas-jet may be adapted and which will be adapted to serve in its own capacity by a slight adjustment.

In practicing our invention we provide a slight aperture in the jet-tube of the main burner and surround this jet-tube with a ring that carries the supplemental-burner tube, the bore of the supplemental-burner tube having communication with the bore of the ring. The ring is rotatable, so as to bring the bore of the supplemental-burner tube into communication with the aperture in the main-burner tube. When the supplemental burner is not to be used, a slight rotation of the ring will cut off the gas supplied thereto, whereupon the main burner is restored to its normal condition, so that it may be used or thrown out of service, as desired. We preferably employ a stopper to close the outlet of the main-burner tube, the stopper being preferably composed of hard rubber, the lava tip being removed each time the stopper is inserted. This insures the proper flow of the gas through the supplemental-burner tube. The supplemental-burner tube preferably has a section added thereto and placed above the same in axial alinement therewith, which is separated by an air-space, so that a thorough mixture of air and gas is effected to produce perfect combustion, resulting in a Bunsen flame, which speedily heats the iron. The support for the curling-iron or other instrument that is to be heated is preferably carried by the ring surrounding the main-burner tube.

We will explain our invention more fully

by reference to the accompanying drawings, in which—

Figure 1 is a side elevation of one of many well-known types of gas-fixtures to which the invention may be applied, the device of the invention being illustrated in position. Fig. 2 is a vertical sectional view through the main and supplemental burner tubes and parts immediately associated therewith. Fig. 3 is a front elevation of the device of the invention, the curling-iron being in position to be heated by the flame of the supplemental burner.

Like parts are indicated by similar characters of reference throughout the different figures.

We have illustrated one of many well-known types of gas-fixtures, that illustrated being in the form of a bracket *a*, provided with a gas-cock *b* near the wall from which the bracket projects, and a main-burner tube *c*, within which a lava tip *d* is normally inserted, this lava tip being shown displaced to illustrate the application of the invention. The main-burner tube is provided with a circular aperture or perforation *e*, communicating with the main bore of the tube. The portion or zone of the main-burner tube where the said orifice is located is surrounded by a ring *f*, from which projects a supplemental-burner tube *g*. The bore of the supplemental-burner tube is continued through the ring, the ring being so located that when rotated the supplemental-burner tube will be brought into communication with the bore of the main tube through the aperture *e*. To effect the rotation of the ring *f*, we preferably provide the same with a knob *h*. To properly guide the ring *f* in its motion, we preferably provide the same at its lower edge with a slot *i*, engaging a pin *k*, projecting from the main-burner tube. When the pin is engaged with one end of the slot, communication between the supplemental-burner tube and the main-burner tube is cut off. When in engagement with the other end of the slot, this communication is established. To properly seal the aperture *e* by the ring *f*, the said ring is preferably made of soft metal— as, for example, an alloy composed of eighty parts, by weight, of lead, ten parts of tin, and ten parts of antimony. The ring *f* is a slip-ring, whereby it may be readily slipped over

the main burner. By the term "slip-ring" or "slip-support" is meant one that does not have threaded engagement. While the gas is passing through the supplemental-burner tube the main-burner tube is preferably closed at its upper end, though it is not absolutely necessary to close it. For this purpose the lava tip *d* is preferably removed, whereupon a stopper *k'*, composed, preferably, of hard rubber, is inserted in its place. The tip and stopper are preferably attached to the ring by means of cords or chains *ll*, that may be connected to the knob *h*. The supplemental-burner tube projects in a downward direction, being provided with a short vertical stretch where the outlet occurs. To secure perfect combustion, we prefer to place over the supplemental tube *g* an additional tubular section *m*, a space being provided between the tubular portions *g* and *m* to permit of the mixture of air with the gas. The support for this section *m* of the supplemental-burner tube may be in the form of an arm *n*, provided at its ends with spring-clips *o* and *p*, that engage the ring *f* and the tube-section *m*, respectively, an enlargement in the tube-section engaging the clip *p* to hold the said tube-section the proper distance above the tube *g*.

The support for the curling-iron or other tool *q* is preferably in the form of a fork whose members *r r* are engaged with the ring *f*, a collar *r'*, attached to the base of the fork, slipping over said ring for this purpose. The fork projects upwardly and slants a trifle, so that its ends are placed in the same plane with the supplemental-burner tube. Where the fork is to support curling-irons, one of the members *r* thereof is provided with a ring *s*, through which the curling-iron is passed, while the companion member of the fork is provided with a trough *t* to engage the points of the curling-iron.

We have herein shown and particularly described the preferred embodiment of our invention; but it is obvious that changes may be made without departing from the spirit thereof, and we do not, therefore, wish to be limited to the precise disclosure herein set forth; but,

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. The combination with a tube provided with a perforation in its wall to afford communication with its bore, of a ring surrounding the portion of the tube where the said perforation is located, and a burner-tube secured to the ring, the bore of the said tube continuing through the ring and adapted to be brought into and out of communication with the said perforation by the rotation of the said ring, substantially as described.

2. The combination with a tube provided with a perforation in its wall to afford communication with its bore, of a ring surrounding the portion of the tube where the said

perforation is located, a burner-tube secured to the ring, the bore of the said tube continuing through the ring and adapted to be brought into and out of communication with the said perforation by the rotation of the said ring, and an added section of burner-tube located above the main tubular section to secure the thorough mixture of air and gas, substantially as described.

3. The combination with a tube provided with a perforation in its wall to afford communication with its bore, of a ring surrounding the portion of the tube where the said perforation is located, a burner-tube secured to the ring, the bore of the said tube continuing through the ring and adapted to be brought into and out of communication with the said perforation by the rotation of the said ring, and a support for the tool to be heated extending above the burner-tube, substantially as described.

4. The combination with a tube provided with a perforation in its wall to afford communication with its bore, of a ring surrounding the portion of the tube where the said perforation is located, a burner-tube secured to the ring, the bore of the said tube continuing through the ring and adapted to be brought into and out of communication with the said perforation by the rotation of the said ring, an added section of burner-tube located above the main tubular section to secure the thorough mixture of air and gas, and a support for the tool to be heated extending above the supplemental-burner tube, substantially as described.

5. The combination with a tube provided with a perforation in its wall to afford communication with its bore, of a ring surrounding the portion of the tube where the said perforation is located, a burner-tube secured to the ring, the bore of the said tube continuing through the ring and adapted to be brought into and out of communication with the said perforation by the rotation of the said ring, and a support for the tool to be heated extending above the burner-tube, the said support being secured to the aforesaid ring, substantially as described.

6. The combination with a tube provided with a perforation in its wall to afford communication with its bore, of a ring surrounding the portion of the tube where the said perforation is located, a burner-tube secured to the ring, the bore of the said tube continuing through the ring and adapted to be brought into and out of communication with the said perforation by the rotation of the said ring, an added section of burner-tube located above the main-burner tube to secure the thorough mixture of air and gas, and a support for the tool to be heated extending above the burner-tube, the said support being secured to the aforesaid ring, substantially as described.

7. The combination with a main-burner tube provided with a removable burner-tip, of a supplemental-burner tube, a ring to

which the latter tube is secured and with the bore of which the latter tube has communication, the main-burner tube being provided with a perforation adapted to be brought into and out of communication with the supplemental-burner tube upon the rotation of the said ring, and means for stopping the outlet of the main-burner tube when the supplemental-burner tube is to be brought into service, substantially as described.

8. The combination with a main-burner tube provided with a removable burner-tip, of a supplemental-burner tube, a ring to which the latter tube is secured and with the bore of which the latter tube has communication, the main-burner tube being provided with a perforation adapted to be brought into and out of communication with the supplemental-burner tube upon the rotation of the said ring, means for stopping the outlet of the main-burner tube when the supplemental-burner tube is to be brought into service, and a support for the tool to be heated extending above the supplemental-burner tube, substantially as described.

9. The combination with a tube provided with a perforation in its wall to afford communication with its bore, of a ring surrounding the portion of the tube where the said perforation is located, and a burner-tube secured to the ring, the bore of the latter tube continuing through the ring and adapted to be brought into and out of communication with the said perforation by the rotation of the said ring, the said ring being composed of soft metal to thoroughly seal the perforation, substantially as described.

10. The combination with a main-burner tube, of a supplemental-burner tube in communication with the bore of the main-burner tube through the side thereof, and a slip-support for the supplemental-burner tube, serving to support the supplemental tube away from the main-burner tube, whereby both burners may be lighted simultaneously, substantially as described.

11. The combination with a main-burner tube, of a supplemental-burner tube in communication with the bore of the main-burner tube through the side thereof, a slip-support for the supplemental-burner tube serving to support the supplemental tube away from the main-burner tube, whereby both burners may be lighted simultaneously, and an added section of the supplemental-burner tube separated from the main section of the supplemental tube to secure an intermixture of air and gas, substantially as described.

12. The combination with a main-burner tube, of a supplemental-burner tube adapted for communication therewith, and a support including a slip-ring by which the supplemental-burner tube is supported upon the main-burner tube and away therefrom, whereby both burners may be lighted simultaneously, substantially as described.

In testimony whereof we hereunto subscribe our names this 20th day of July, A. D. 1901.

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