E. RUSSELL.

Extension Gasalier.

No. 162,694. Patented April 27, 1875.

fig 1

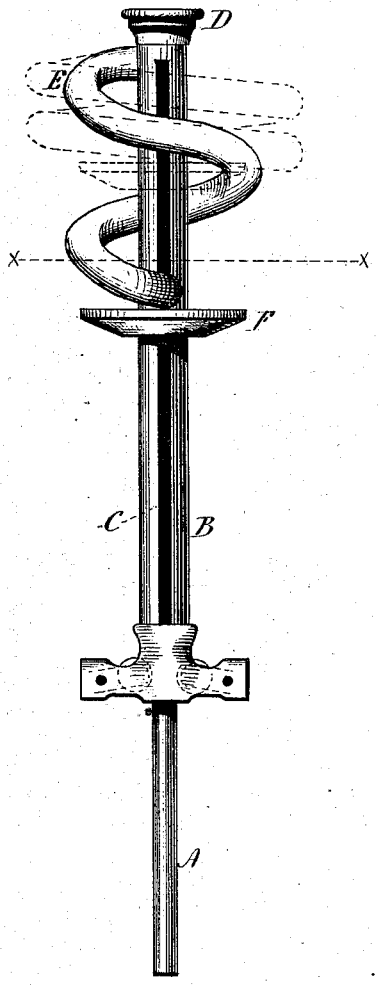


fig 2.

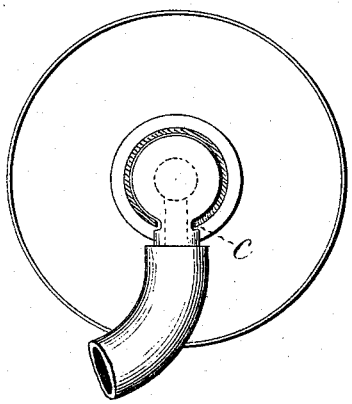
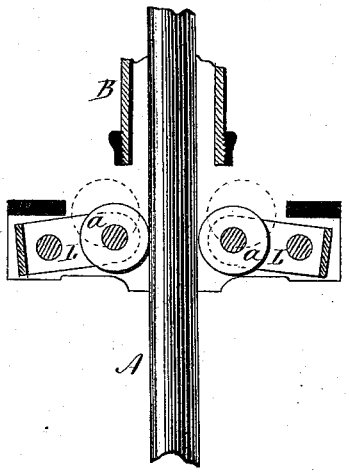


fig 3.



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UNITED STATES PATENT OFFICE.

EDWIN RUSSELL, OF NEW HAVEN, CONNECTICUT.

IMPROVEMENT IN EXTENSION-GASALIERS.

Specification forming part of Letters Patent No. **162,694**, dated April 27, 1875; application filed January 18, 1875.

To all whom it may concern:

Be it known that I, EDWIN RUSSELL, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Extension-Gasalier; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, side view; Fig. 2, transverse section in line *x x*, enlarged; Fig. 3, vertical sectional view, enlarged.

This invention relates to an improvement in that class of gas-fixtures in which one or more of the burners are arranged to be drawn down, or held at different elevations. This invention consists in an inner tube arranged to slide within an outer tube, the said outer tube slotted vertically, and combined with a flexible tube, one end of which communicates with a stationary part of the gasalier, and the other connected to the said inner tube through the slot in the outer tube, and in combining with such parts a pan or receiver, moving with the inner tube to support the slack of the said flexible tubes; also, in a peculiar frictional device, for holding the said inner tube at any desired point of elevation, as more fully hereinafter described.

A is the inner tube, to which the burner or burners to be movable are attached, in the usual manner; B, the outer tube, permanently attached at its upper end to the stationary part of the gasalier, or to the supply-pipe, but not communicating therewith. This tube B has a vertical slot, C, equal, at least, to the extent of movement desired, and opening directly to the inner tube A, as seen in Fig. 2. To the stationary part D, or other convenient point, one end of a flexible tube, E, is attached, opening directly to the supply, and coiled around the tube B. The other end is attached to and opens into the inner movable tube A, as seen in Fig. 2, through the slot C in the outer tube. This flexible tube conducts the gas from the supply-pipe to the inner tube. The slot in the outer tube allows the inner tube, with the lower end of the flexible tube, to be drawn down or raised, as denoted in Fig. 1, the coils of the flexible tube allowing such movement. In order that the flexible tube may be held up, and prevented from hanging loosely down when the inner tube is raised, a pan, F, surrounding the outer tube and attached to the inner tube, is arranged below the connection of the flexible tube with the inner tube; hence, when the tube is raised, the coils or folds will be caught and held in the said pan. Some frictional device is necessary to support the inner tube and its burner at any required elevation. To do this a pair of cams, L, are arranged in connection with the outer tube, carrying in their face a roll, *a*. These press against the surface of the tube A, so that the radial bearing-line of said cams cannot come down into the same plane; hence the cams grasp the tube A with sufficient force to hold it up, but yet so that, by the application of a little more power than the weight of the tube A, and its attachments, the tube may be drawn down. On raising the tube A the cams yield, as denoted in broken lines, Fig. 3, and entirely remove the friction during the upward movement of the tube.

I claim—

1. The combination of the inner movable tube A, the slotted outer tube B, and the flexible conducting-tube E, substantially as and for the purpose specified.

2. The combination of the inner movable tube A with the slotted tube B, flexible conducting-tube E, and pan F, substantially as and for the purpose specified.

3. The combination of the inner movable tube A, outer tube B, and cams L L, each carrying a roll, *a*, in its face, substantially as and for the purpose specified.

EDWIN RUSSELL.

Witnesses:

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