

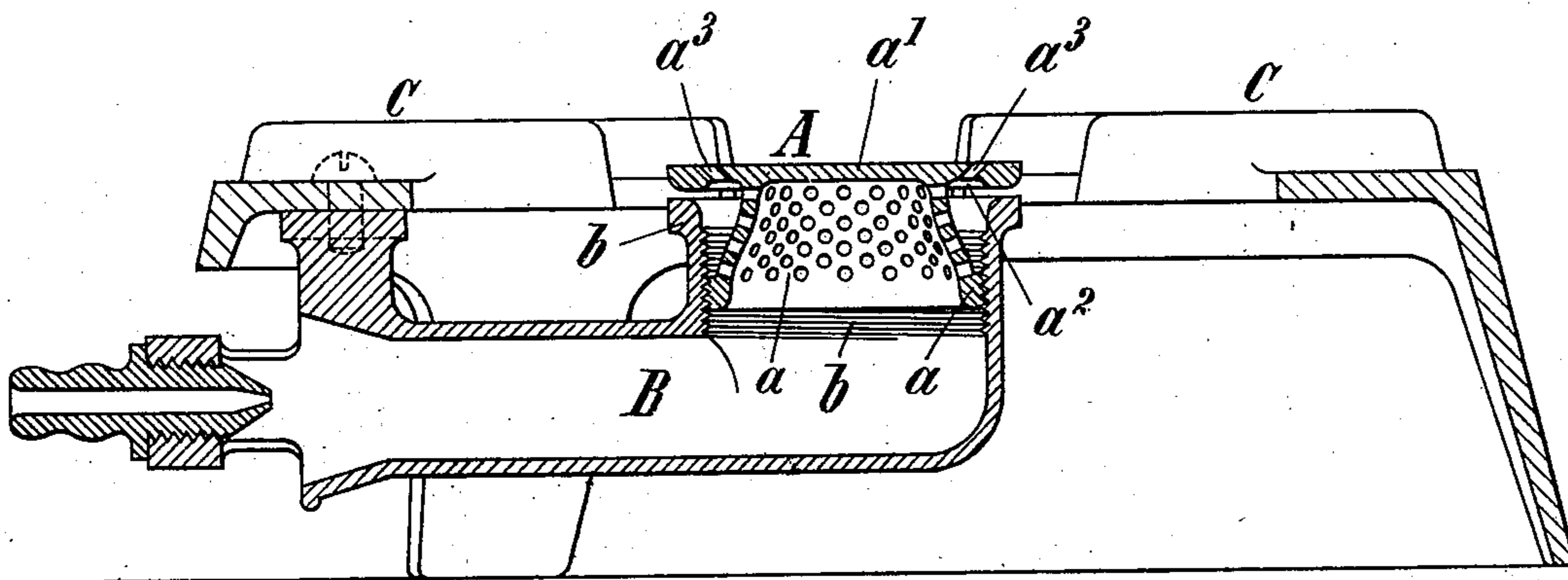
No. 734,244.

PATENTED JULY 21, 1903.

R. C. H. SIEVERTS.  
BUNSEN BURNER.

APPLICATION FILED OCT. 1, 1902.

NO MODEL.



Witness:  
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# UNITED STATES PATENT OFFICE.

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## BUNSEN BURNER.

SPECIFICATION forming part of Letters Patent No. 734,244, dated July 21, 1903.

Application filed October 1, 1902. Serial No. 125,557. (No model.)

*To all whom it may concern:*

Be it known that I, RICHARD C. H. SIEVERTS, a subject of the German Emperor, and a resident of Hamburg, in the German Empire, have invented certain new and useful Improvements in Bunsen Burners, of which the following is a specification.

The present invention relates to a Bunsen burner especially adapted for heating purposes and provided with two flame-crowns, one of which is arranged above and the other on the periphery of the burner.

The invention consists in certain novel features of construction and combinations of parts, as will be hereinafter fully described with reference to the accompanying drawing, whereon I have shown a longitudinal vertical section of a Bunsen burner constructed in accordance with and embodying my invention.

Similar letters refer to similar parts.

According to this invention a burner-head A is adjustably screwed into the upwardly-directed threaded mouth *b* of the mixing-tube B, attached to the stove-frame C. The head A consists of a peripherally-perforated and upwardly-tapering cap *a*, covered by a plate or disk *a'*. The edge of this plate *a'* forms an annular projection beyond the said cap *a* and extending to the edge of the mouth of the mixing-tube. Upon the lower side of the annular portion or projection overlying the mouth *b* is formed an annular groove *a<sup>2</sup>*, from which outwardly-directed holes or passages *a<sup>3</sup>* penetrate the aforesaid annular projection of the plate *a'*. The passages *a<sup>3</sup>* serve to conduct a portion of the gas mixture issuing from the sieve-apertures of the cap *a* directly above the burner-disk *a'*, so that small thin flames or gas-jets especially adapted for gas cooking-stoves may be formed above the disk *a'*. Owing to the adjustability of the head A, it is possible not only to make the tulip-shaped flame-crown around the edge of the disk *a'* more or less broad, according to requirements, but also to regulate the size of the flames or flame-ring formed by the outwardly-directed passages *a<sup>3</sup>*. The size of these latter flame-jets will be the greater the more the head A is screwed down into the

mouth *b*. On account of the decreased free space between the mouth and the plate *a'* a corresponding greater amount of gas will be caused to pass with a likewise corresponding greater pressure through the passages *a<sup>3</sup>*, and vice versa. The annular groove *a<sup>2</sup>*, into which the inclined passages *a<sup>3</sup>* are running, has the object to serve as a store, and to thus assure a uniform and reliable supply of the gas mixture into the passages *a<sup>3</sup>*.

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

1. A burner of the class described, the combination of a mixing-tube and a burner-head mounted therein, comprising a converging cap having a projecting plate adapted to partially close the mouth of said mixing-tube, substantially as described.

2. In a burner of the class described, the combination of a mixing-tube, and a burner-head adjustably mounted therein comprising an upwardly-tapering perforated cap having a projecting plate adapted to overlap the mouth of said mixing-tube, substantially as described.

3. In a Bunsen burner, the combination with a mixing-tube, of a burner-head adjustably mounted therein comprising an upwardly-tapering perforated cap, and a plate formed on said cap projecting over the mouth of the mixing-tube having perforations formed therein between its periphery and the cap, substantially as described.

4. In a Bunsen burner, the combination with a mixing-tube B, of a burner-head A adjustably mounted in said tube comprising a perforated upwardly-tapering cap portion *a*, a crown or plate *a'* formed on said cap and projecting over the mouth of said mixing-tube and having an annular groove *a<sup>2</sup>* in its under face between its periphery and perforated cap, and outwardly-directed passages *a<sup>3</sup>* in said groove, for the purpose set forth.

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