

No. 624,133.

Patented May 2, 1899.

J. A. VINCENT.
TIP FOR BURNERS.
(Application filed Aug. 18, 1898.)

(No Model.)

Fig. 1,

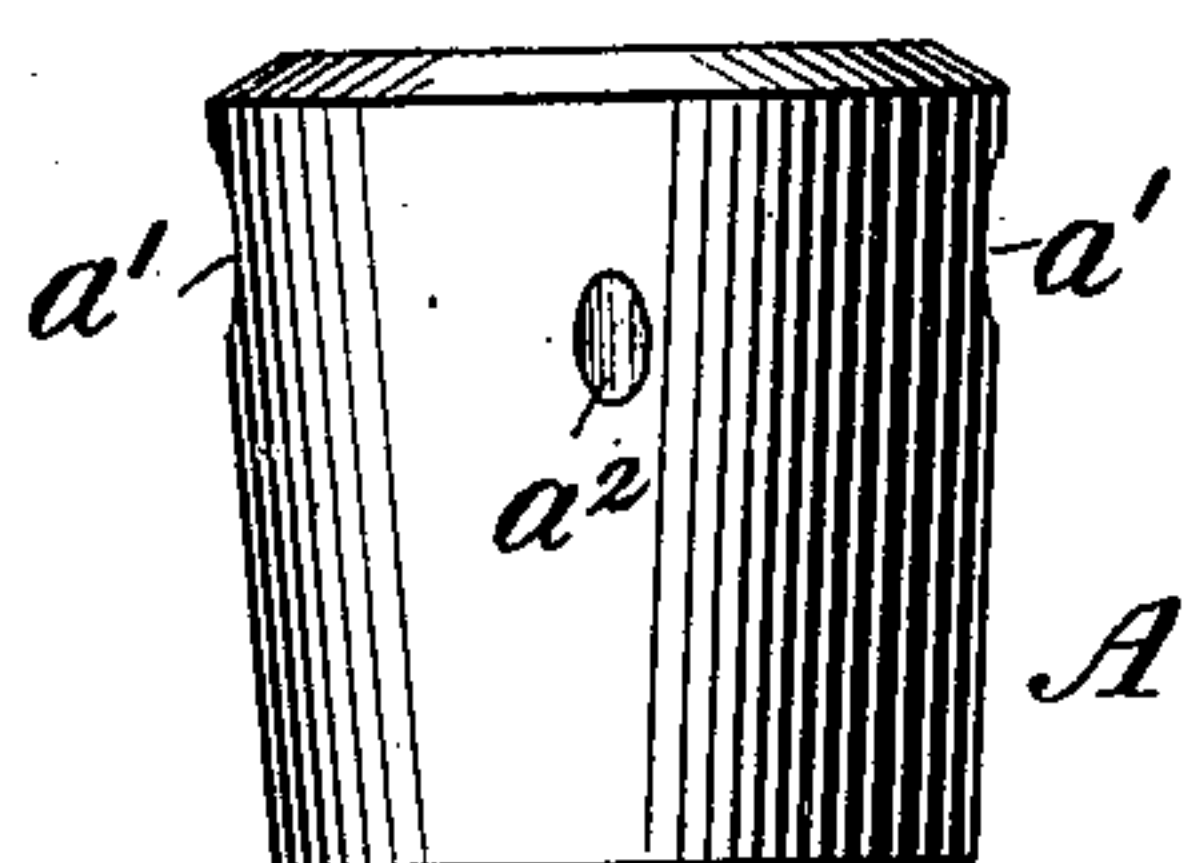


Fig. 2,

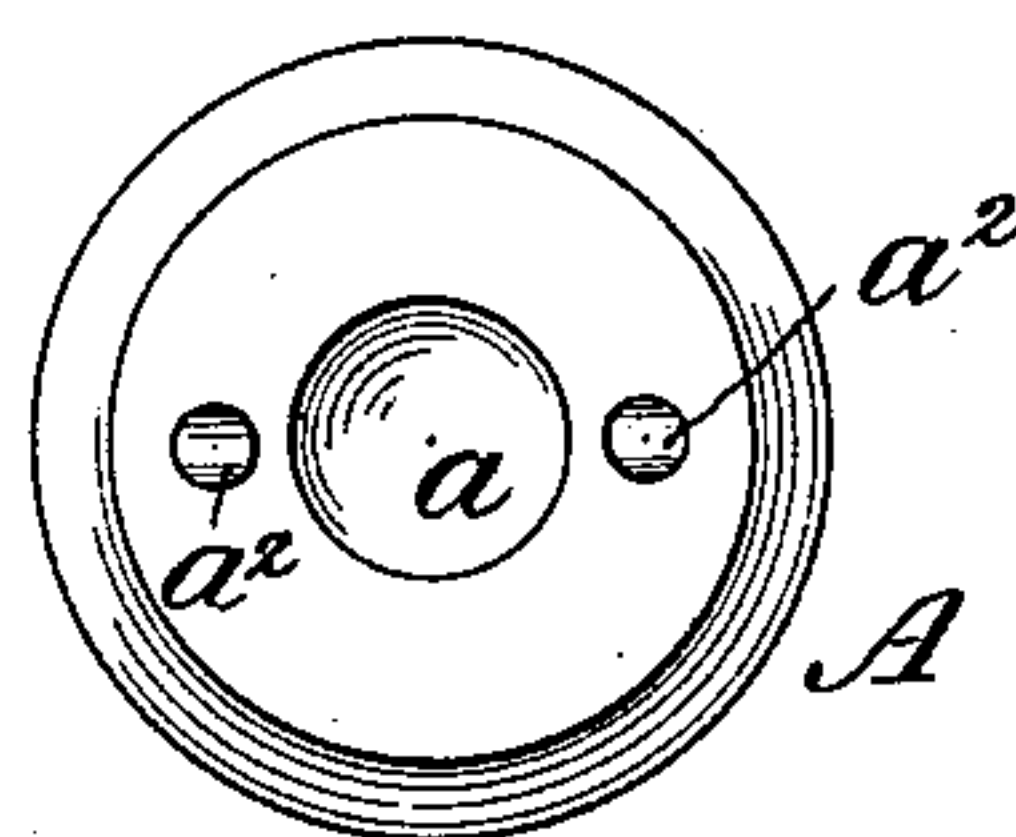


Fig. 3,

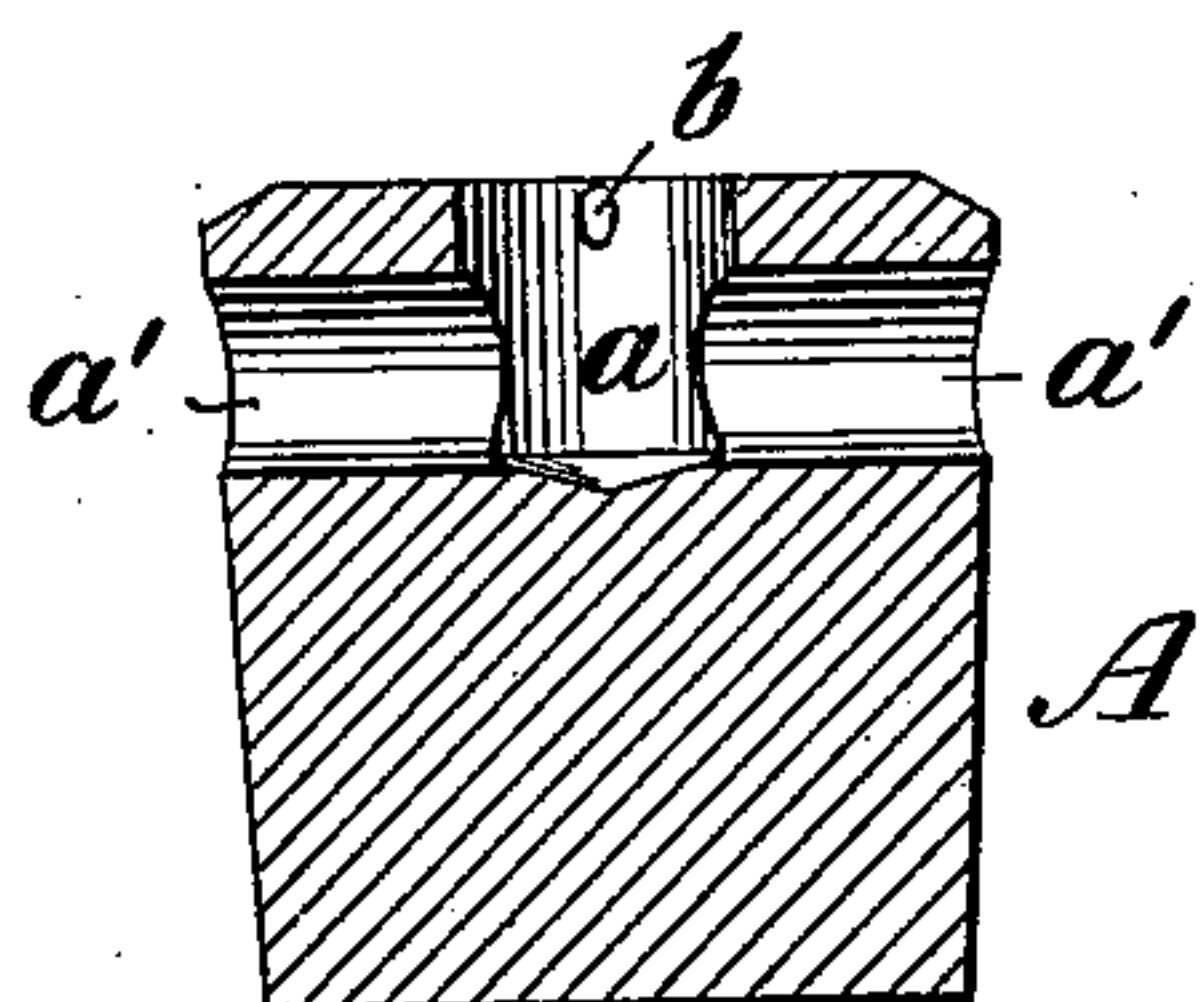
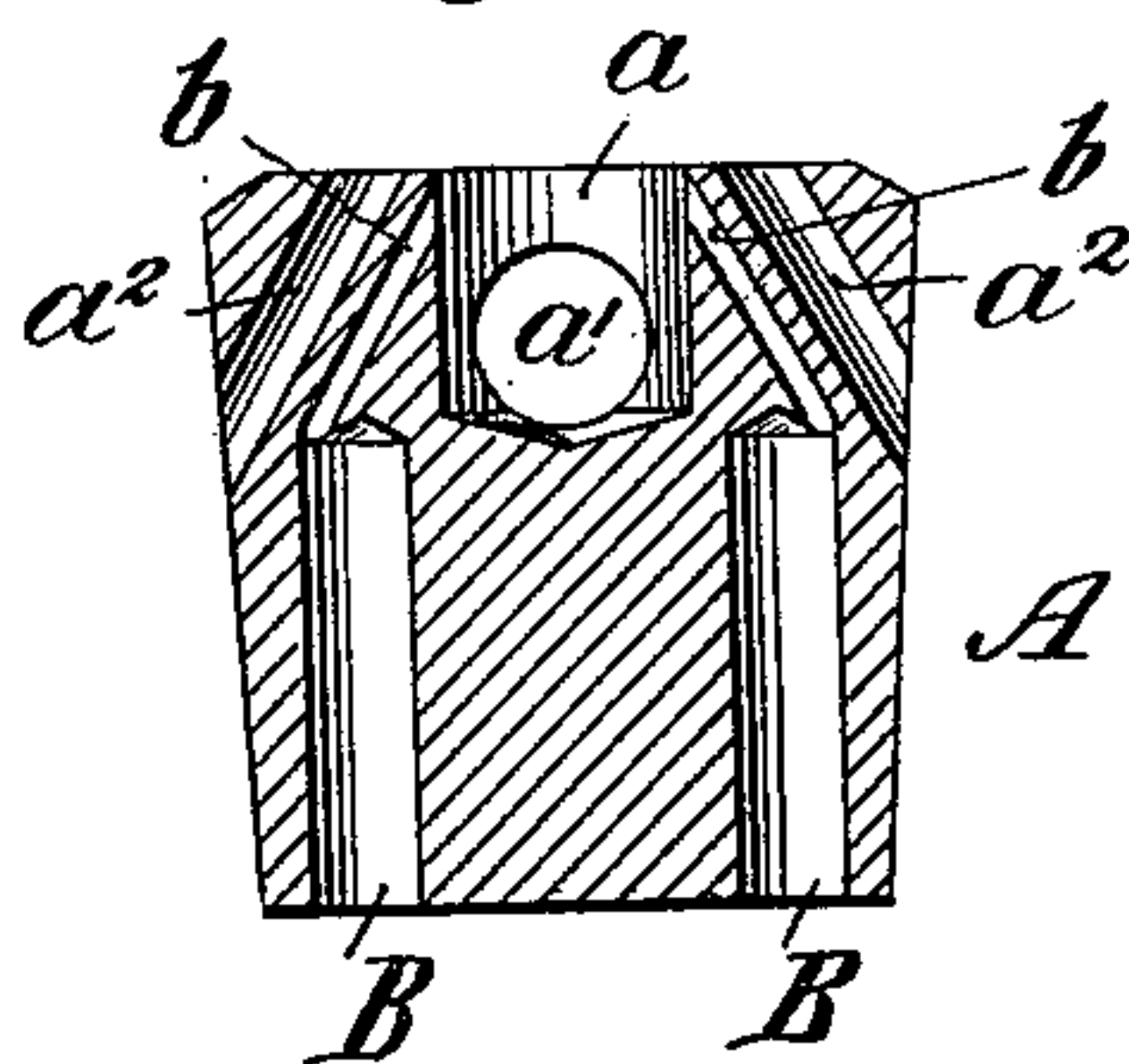


Fig. 4,



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TIP FOR BURNERS.

SPECIFICATION forming part of Letters Patent No. 624,133, dated May 2, 1899.

Application filed August 18, 1898. Serial No. 688,895. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH A. VINCENT, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Tips for Burners, of which the following is a specification.

My invention relates to tips for burners used for burning rich gases, especially acetylene gas.

I will describe a tip embodying my invention and then point out the novel features in the claims.

In the accompanying drawings, Figure 1 is an elevation of a tip embodying my invention. Fig. 2 is a top view thereof. Fig. 3 is a vertical section. Fig. 4 is also a vertical section in a plane at right angles to the plane of Fig. 3.

Similar letters of reference refer to corresponding parts in all of the figures.

A represents a tip of any desired material. It is formed with a central and vertical chamber *a* at its top and with a horizontal air-passage *a'*, extending diametrically across the tip and intersecting the vertical chamber *a* at its lower end.

*a*² represents inclined air-passages arranged diametrically opposite each other and intermediate the ends of the horizontal passage *a'*.

B represents gas-passages arranged diametrically opposite each other in the tip and extending from the bottom of the tip upwardly.

b represents constricted and inclined passages leading from the upper ends of the passages B to the vertical chamber *a*. Each of

these passages is parallel with an adjacent air-passage *a*².

The operation of the tip seems to be: The gas issuing from the constricted passages will meet to form a flat flame, which is carried away from the surface of the tip by the air drawn from the central chamber *a*. The issuing gas also draws air through the inclined passages *a*², which keeps the outside of the flame cool and prevents any deposit of carbon at that point.

What I claim as my invention is—

1. A tip for burners formed with a central chamber in its top, an air-passage extending diametrically through the tip and intersecting said chamber, vertical gas-passages diametrically opposite each other, and constricted inclined passages communicating at one of their ends with said vertical passages and at their other ends with the central chamber above the diametrically-extending air-passage.

2. A tip for burners provided with a central chamber in its top, an air-passage extending diametrically through the tip and intersecting said chamber, inclined air-passages arranged diametrically opposite each other, vertical gas-passages arranged diametrically opposite each other, and inclined gas-passages each parallel with an adjacent inclined air-passage and communicating with an adjacent vertical gas-passage and the central chamber.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOSEPH A. VINCENT.

Witnesses:

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