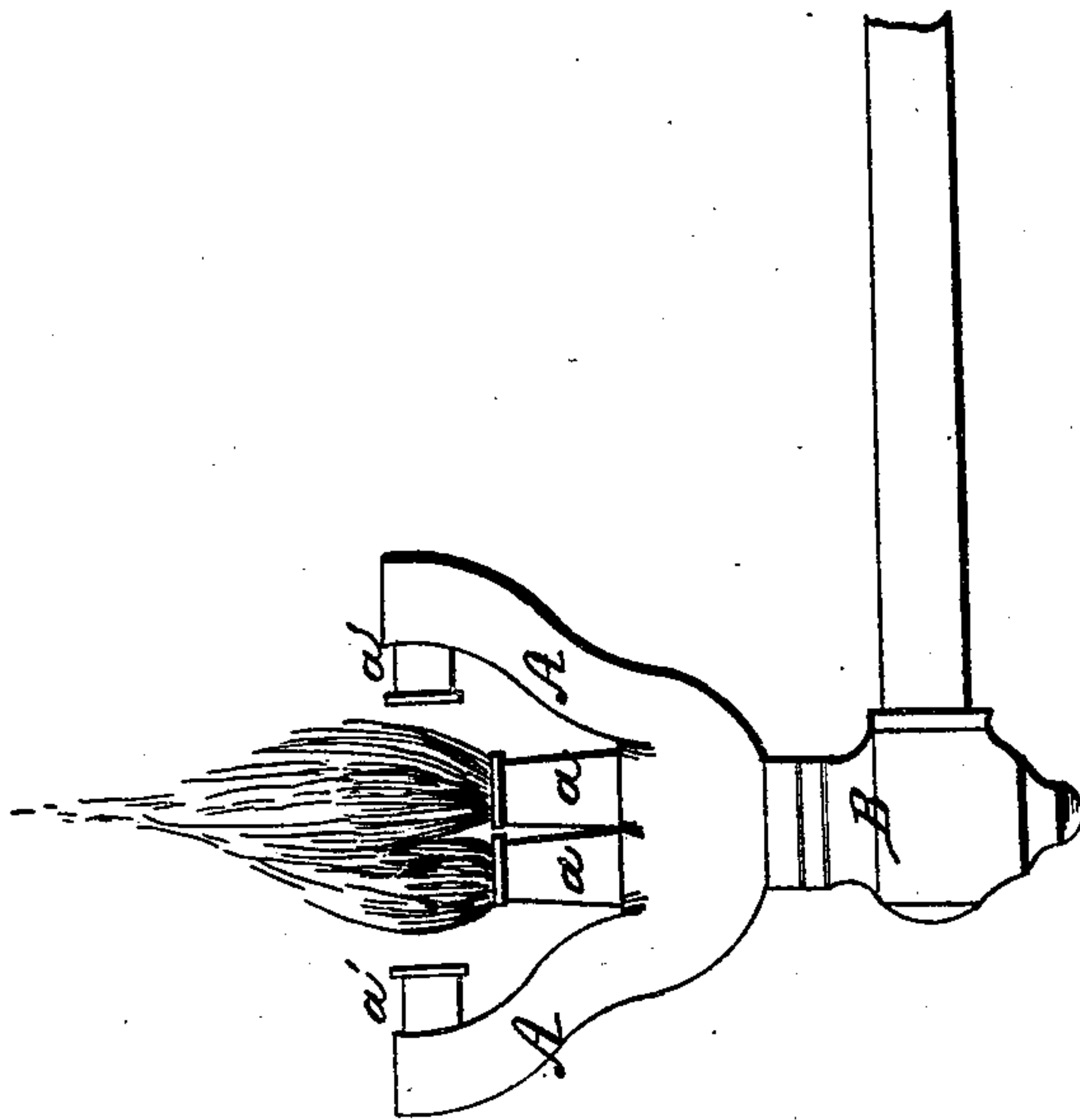


BRIDGMAN & WELLMAN.

Gas Burner.

No. 79 545.

Patented July 7, 1868.



Witnesses:
N. W. Hulborn
G. M. Bartlett

Inventors:
J. S. Bridgman
E. P. Wellman

United States Patent Office.

J. S. BRIDGMAN AND EDWIN G. WELLMAN, OF BROCKPORT, NEW YORK.

Letters Patent No. 79,545, dated July 7, 1868.

IMPROVEMENT IN GAS-BURNERS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that we, J. S. BRIDGMAN and EDWIN G. WELLMAN, of Brockport, in the county of Monroe, and State of New York, have invented a certain new and useful Improvement in Gas-Burners; and we do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

The figure represents an elevation of our improved burner.

Our invention consists in a branched burner, in which several nipples are employed, standing at right angles to each other, in such a manner that the gas will be concentrated, and, at the same time, the air brought in contact, to produce the best effect in combustion.

In the drawings, A A indicate branches of the main tube B, and *a a a' a'* indicate the nipples, or burners proper, which are screwed therein. The nipples *a a* stand vertically, at suitable distances apart, while *a' a'* stand horizontally, a little distance above, as clearly shown.

By this arrangement the several currents of gas are made to impinge on each other, and concentrate in the centre, where they expand laterally, at right angles to the plane of the nipples, in a broad, thin sheet. By thus concentrating, the effect is to delay the currents, and prevent the too rapid upward escape of the gas which occurs in ordinary vertical burners, when there is no retardation. This concentration or impact, and the expanding in a thin sheet, insures a greater brilliancy of light, with a smaller consumption of gas, than where the diffusion is unchecked.

This arrangement also insures the best effect of the air, which can enter the space between the vertical nipples, and also surround the body of gas from the sides and top.

The simple screwing of the nipples into the pipe, in the manner shown, enables us to adjust them exactly as desired, so as to produce a steady, regular form to the blaze.

What we claim as our invention, and desire to secure by Letters Patent, is—

The branched burner A A, provided with the vertical nipples *a a* and horizontal nipples *a' a'*, arranged as described, and operating in the manner and for the purpose specified.

In witness whereof, we have hereunto signed our names in the presence of two subscribing witnesses.

J. S. BRIDGMAN,
EDWIN G. WELLMAN.

Witnesses:

R. F. OSGOOD,
W. J. CREELMAN.