

No. 637,230.

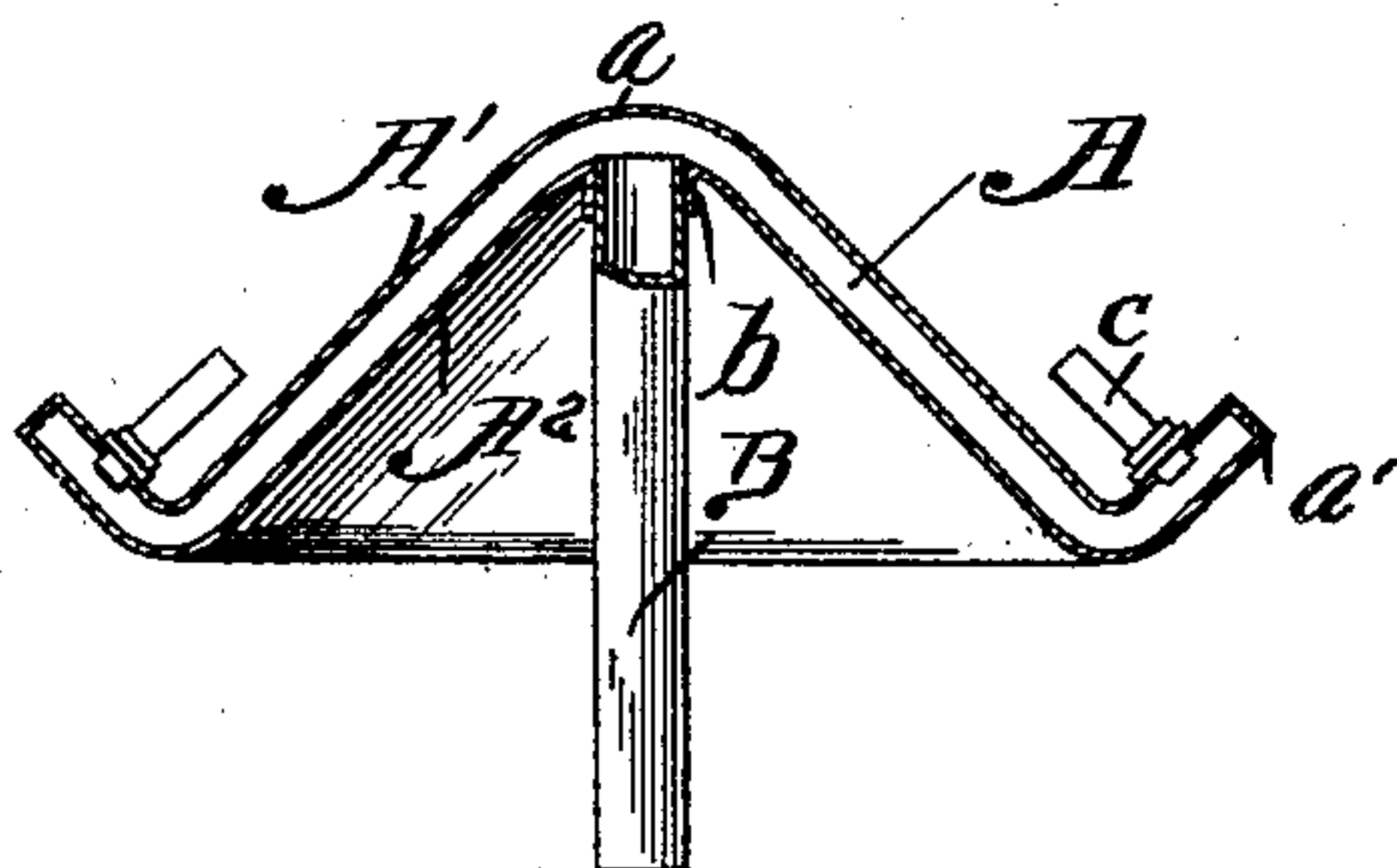
Patented Nov. 21, 1899.

E. BURDEN.

BURNER FOR GAS OR OIL STOVES.

(Application filed May 19, 1899.)

(No Model.)



Attest
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UNITED STATES PATENT OFFICE.

EDWARD BURDEN, OF GRANTHAM, ENGLAND.

BURNER FOR GAS OR OIL STOVES.

SPECIFICATION forming part of Letters Patent No. 637,230, dated November 21, 1899.

Original application filed February 21, 1899, Serial No. 706,375. Divided and this application filed May 19, 1899. Serial No. 717,470. (No model.)

To all whom it may concern:

Be it known that I, EDWARD BURDEN, engineer, a subject of the Queen of Great Britain and Ireland, and a resident of Desboro Villa, 5 Dysart road, Grantham, in the county of Lincoln, England, have invented certain new and useful Improvements in and Relating to Burners for Gas or Oil Stoves, (for which I have made application for Letters Patent in Great 10 Britain, No. 12,434, bearing date June 2, 1898,) of which the following is a specification, this application being a division of application Serial No. 706,375, filed February 21, 1899.

My invention relates to burners for gas and 15 oil stoves, and has for its object to provide a burner in which the gas or vapor to be consumed is initially heated to secure perfect combustion.

My invention consists of a regenerative 20 burner-chamber of comparatively small depth and of relatively large superficial area, having the burner or burners whence the flame or flames issue so disposed that the chamber shall be heated by the flames, so as to prepare 25 the gas or vapor for complete combustion.

My invention is illustrated in the accompanying drawing, in which the figure is a sectional elevation of a regenerative gas-burner of conical form.

30 In carrying my invention into effect, as illustrated in the accompanying drawing, in the provision of a regenerative burner for use more particularly in gas-stoves I provide a burner-chamber A, of conical form and of uniform depth, having a gas-inlet B thereto preferably beneath the chamber A at its apex a, 35 so that the gas may pass from the center outwardly and downwardly, the lower peripheral edges a' of the chamber A being preferably 40 outwardly and upwardly diverted to such an extent as to permit of the burners c, which are provided thereupon, to be in line with the face of the cone A, which is of such a length

that the flat flames issuing from the respective burners shall not meet at the apex. 45

The burner-chamber A is made from cast or wrought metal by uniting two cones A' A² at their outwardly-diverted edges a' a'. The one cone A² beneath the other, A', may be secured to it by brazing or spinning the edges a' a', 50 or when made of cast metal the one cone may be screwed upon the other or otherwise tightly secured thereto. The gas is led into the chamber A by means of the supply-pipe B, which is screwed within a nipple or ferrule b, provided at the apex of the lower cone, or otherwise secured thereto. In the employment of 55 such a burner it will be understood that the gas in its passage to the jets is heated, so as thereby to insure complete combustion. 60

This pattern of regenerative burner-chamber is designed for stoves of square or circular form and for other forms, such as those of relatively small height, or where a series of such burners may be arranged together in a 65 cluster or in line.

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

A gas or vapor burner comprising two conical plates of corresponding configuration 70 having each an annular flange extending upward at right angles to the body of the plate, said flanges having their edges connected, a gas-supply pipe connected to the apex of the 75 under plate and nipples carried by the flange of the upper plate at right angles to the flange and overhanging the conical portion of the plate, substantially as described.

In witness whereof I have hereunto set my 80 hand in presence of two witnesses.

EDWARD BURDEN.

Witnesses:

WILLIAM EDWARD EVANS,
ALBERT EDWARD PARKER.