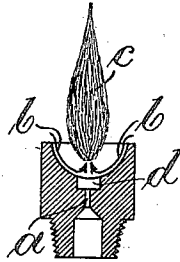


No. 875,301.

PATENTED DEC. 31, 1907.

K. THURNAUER.
BURNER FOR ACETYLENE AND LIKE GASES.
APPLICATION FILED JUNE 16, 1906.



Witnesses:
Paul Hinkelmann.
Arthur Scholz.

Inventor:
Kuno Thurnauer.
by: Robert D. S. Co.
Attorney.

UNITED STATES PATENT OFFICE.

KUNO THURNAUER, OF NUREMBERG, GERMANY.

BURNER FOR ACETYLENE AND LIKE GASES.

No. 875,301.

Specification of Letters Patent.

Patented Dec. 31, 1907.

Application filed June 16, 1905. Serial No. 265,579.

To all whom it may concern:

Be it known that I, KUNO THURNAUER, a subject of the King of Bavaria, and resident of Nuremberg, in the Kingdom of Bavaria, German Empire, have invented certain new and useful Improvements in Burners for Acetylene and Like Gases, of which the following is an exact specification.

Attempts have already been made to prevent the choking of the nozzle orifices of acetylene burners by soot, by making the nozzle open into a trough or cup-shaped recess in the burner head. In these burners the combustion air flows downwards along the inner walls of the trough and, following the draft of the flame, rises again in the center, so that a space free from air is produced at the root of the flame, in which space the gas does not mix with the air, and the base of the flame is situated slightly above the nozzle mouth.

The prevention of the choking of the orifice by soot or burned residue is effected in a better and more perfect manner according to this invention by arranging at the bottom of the above mentioned trough or cup in the burner head another recess of any desired shape, usually cylindrical, into which air currents do not penetrate. In this way the portion free from air at the root of the flame, and the distance between the root of the flame and the edge of the nozzle are still further increased.

In order to make my invention clear, I refer to the accompanying drawing, in which: the figure shows a burner according to this invention. The arrows indicate the direction of air currents.

In the figure *a* designates the nozzle of the burner which does not open directly into the trough or cup shaped recess *b*, but communicates with a secondary recess *d* below the main recess in the burner head.

It may be pointed out for giving a clear idea and limitation of the expression "trough- or cup-shaped recess" that it means a recess the diameter of which is larger than its depth.

Having thus fully described the nature of my invention, what I desire to secure by Letters Patent of the United States is:—

A burner for acetylene and like gases, provided with a trough- or cup-shaped recess in the burner head, the diameter of which recess is larger than its depth, and with a supplementary recess provided below the main recess, into which supplementary recess the gas inlet passage opens directly.

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

KUNO THURNAUER.

Witnesses:

OSCAR BOCK,
PAUL WOLLENBERG.