

K. THURNAUER.
ACETYLENE BURNER.
APPLICATION FILED JAN. 3, 1905.

930,574.

Patented Aug. 10, 1909.

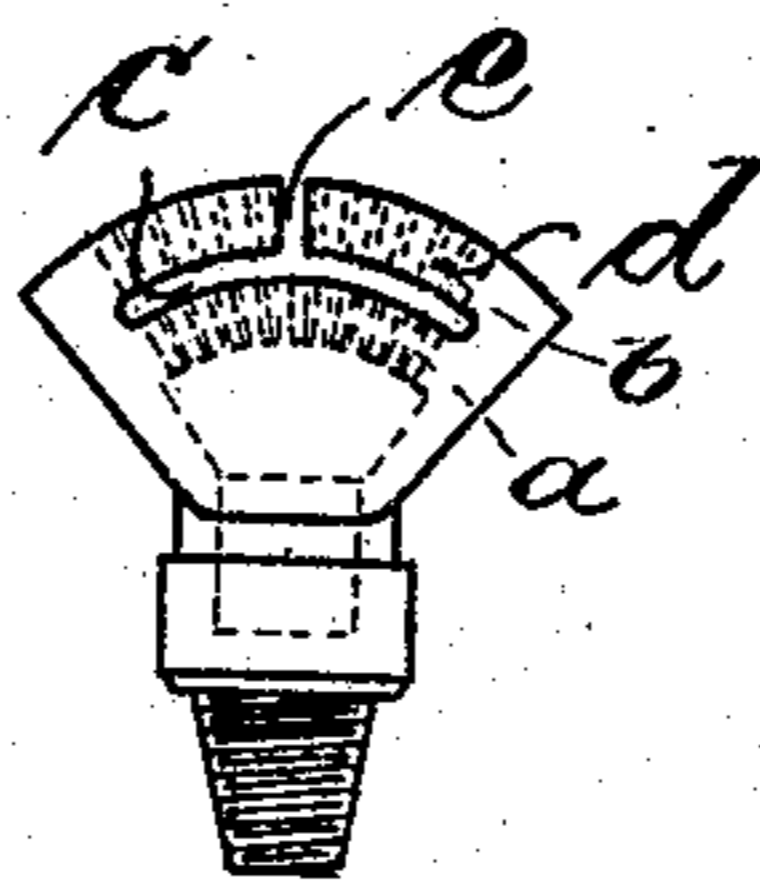


Fig. 1.

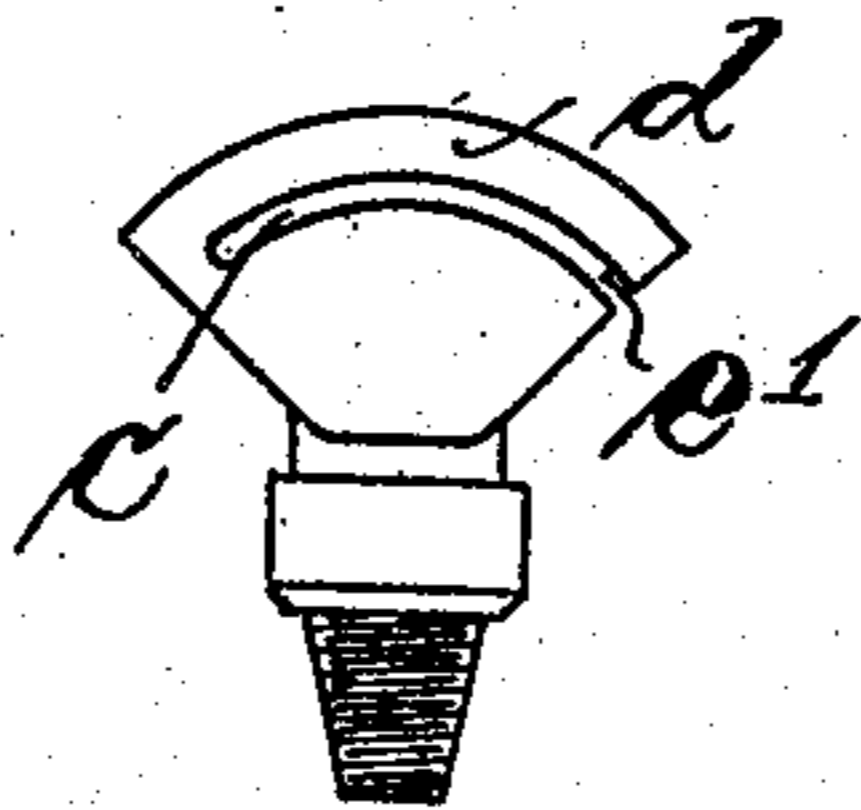


Fig. 2.

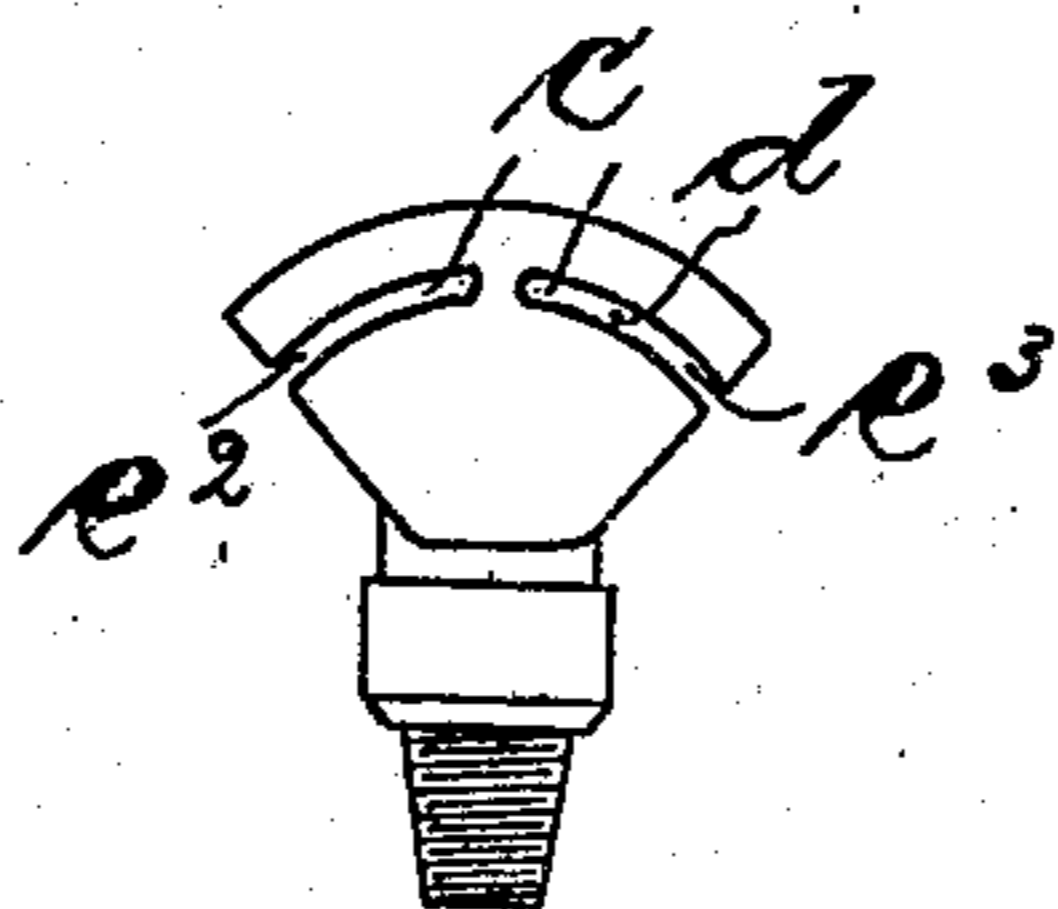


Fig. 3.

Witnesses:
Arthur Scholz
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UNITED STATES PATENT OFFICE.

KUNO THURNAUER, OF NUREMBERG, GERMANY.

ACETYLENE-BURNER.

No. 930,574.

Specification of Letters Patent.

Patented Aug. 10, 1909.

Application filed January 3, 1905. Serial No. 239,502.

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 Acetylene-Burners, of which the following is an exact specification.

My invention relates to acetylene burners and more especially to series burners or burners having a series of gas bores and in which the pipes necessary for leading in air are connected to a slit. These burners have the disadvantage that the part above the slit cannot freely expand and therefore bursts.

This is avoided by my present invention which consists therein, that the bow formed by said slit in the upper burner part is so connected to the lower burner part that the bow end or ends are free and can expand without resistance. For this purpose the bow is cut through or only connected at one point to the lower burner part.

In order to make my invention more clear, I refer to the accompanying drawings, in which:

Figure 1 is an outside view of a burner illustrating the present invention, Figs. 2 and 3 are views similar to Fig. 1 and show modified arrangements of the burner according to the present invention.

In the burner shown in Fig. 1 the gas leaves through the bores *a* and enters then the chamber *b*, the gas being provided at this occasion with air through the slit *c*. The slit *c* is so arranged as to create a bow *d* in the upper burner part. Now in the hitherto known construction the bow *d* is connected at both ends to the lower burner part. The bow *d* is considerably heated especially if burning a small flame, whereas the burner part be-

low this slit *c* is less heated. This latter part can therefore not follow the expansion of the bow *d* thereby causing a breaking or bursting of the burner. This is avoided in the burner constructed according to Fig. 1 by cutting through the burner bow in its middle at *e*, so that the bow is provided with free ends and can expand independently from the lower burner part.

In Fig. 2 the bow *d* is connected to the lower burner part at one side only, whereas in the construction Fig. 3 the bow *d* is connected in its middle by a web to the lower burner part. In every case free bow ends at *e e' e² e³* in Figs. 1, 2 and 3 respectively are created, so as to allow an expansion of the bow independently from the lower burner part.

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

1. An acetylene gas burner consisting of a single body portion, having a series of gas bores therein, and a slit intersecting said gas bores, a bow integral with said body portion and expanding and contracting independently thereof, substantially as described.

2. An acetylene gas burner consisting of a single body portion, having a series of gas bores therein, and a slit intersecting said gas bores, a bow integral with said body portion and having its free ends opposite each other, which ends expand and contract independently from said body portion.

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

KUNO THURNAUER.

Witnesses:

OSCAR BOCK,
HERM. HITSCHKE.