Dec. 22, 1931. E. W. H. BEHRENDT ET AL 1,837,400

GAS BURNER FOR INCUBATORS

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Fig. 1.

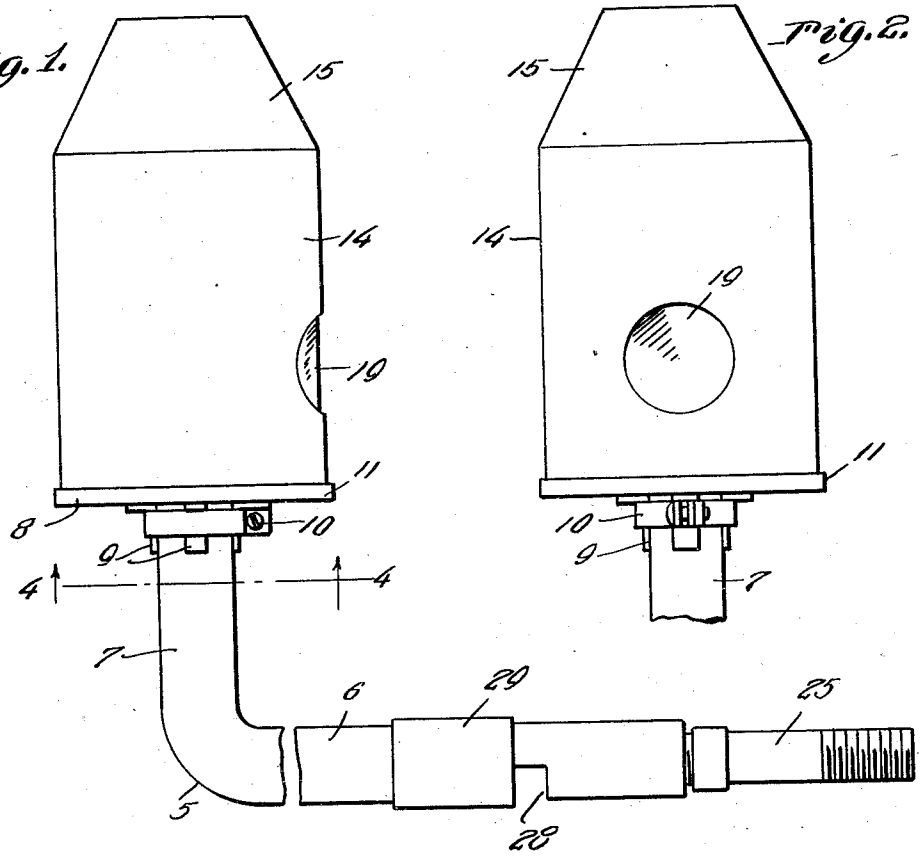


Fig. 2.

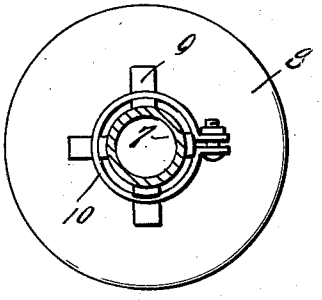


Fig. 4.

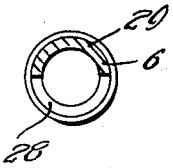


Fig. 6.

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Fig. 3.

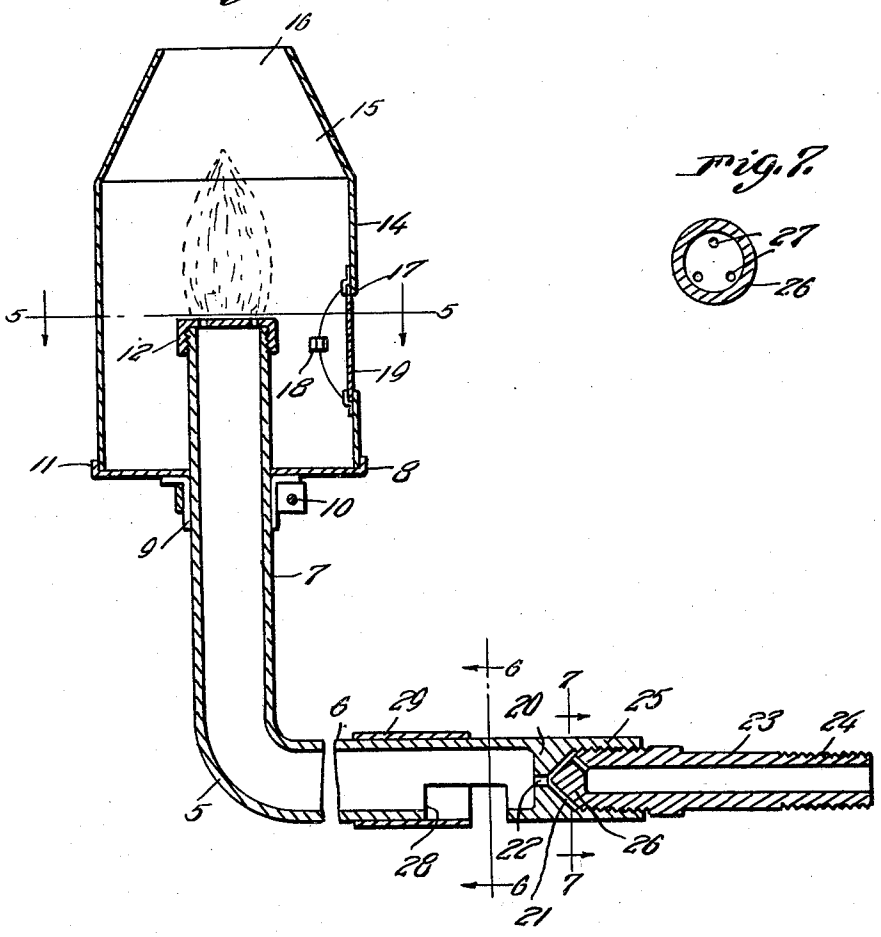


Fig. 7.

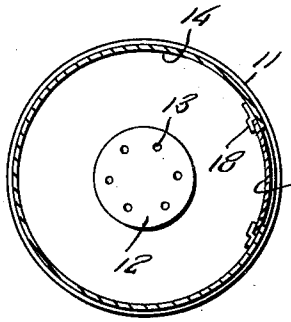


Fig. 5.

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UNITED STATES PATENT OFFICE

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GAS BURNER FOR INCUBATORS

Application filed April 11, 1930. Serial No. 443,486.

This invention relates broadly to gas burners, and has more particular reference to a gas burner for incubators.

A primary object of this invention is to provide a gas burner especially adapted for use in incubators, and further to provide a burner capable of using either artificial or natural gas, which will consume but little gas, will maintain a steady heat, will be safe, clean, odorless and otherwise conducive to better hatching.

Other objects and advantages of the invention will become apparent during a study of the following description takes in connection with the accompanying drawings;

Figure 1 is a side elevational view of our improved burner,

Figure 2 is a fragmentary elevational view for more clearly illustrating the chimney,

Figure 3 is a transverse vertical sectional view taken through the burner,

Figure 4 is a detail sectional view taken substantially on the line 4—4 of Figure 1,

Figure 5 is a similar view taken substantially on the line 5—5 of Figure 3,

Figure 6 is a detail sectional view taken on the line 6—6 of Figure 3.

Figure 7 is a detail sectional view taken substantially on the line 7—7 of Figure 3.

With reference more in detail to the drawings, it will be seen that our improved burner comprises a substantially L-shaped tubular member 5 including the horizontal arm 6 and the vertical arm 7. A supporting plate 8 is provided with an opening in the center thereof for receiving the upper end of the arm 7 and the plate adjacent the opening is provided with a plurality of circumferentially spaced angular lugs or brackets 9 adapted for disposition about the arm 7 and retained in clamped engagement with the arm 7 for retaining the plate 8 in an adjusted position on said arm through the medium of a split clamping ring 10 of conventional structure. The plate is provided with an annular upstanding flange 11. Threaded on the upper end of the arm 7 is a burner head 12 provided with a plurality of flame openings arranged in an annular series indicated by the reference character 13. A tubular chimney 14 has its lower end resting on the plate 8 within the confines of the flange 11 and the chimney at its upper end is reduced to provide a frusto-conical hood 15 having an opening 16 in the apex thereof.

On one side thereof the peripheral wall of the chimney 14 is provided with a suitable opening 17 and arranged in this opening and held therein through the medium of suitable retaining lugs 18 is a transparent closure 19.

The arm 6 of the tube 5 at its free end is internally threaded and inwardly from the threaded end is provided with a partition 20 having a concave recess 21 opening outwardly toward the free end of the arm 6 and at its inner end or apex merges into a charge opening 22. A feed nozzle 23 is threaded at one end 24 for engagement with a suitable conduit leading from a suitable supply of gas, and has its other end threaded within the threaded end of the arm 6 as at 25.

The feed nozzle 23 at said end 25 merges into a conical head 26 fitting within the conical recess 21 in spaced relation to the walls of the recess.

The head 26 is provided with a plurality of discharge apertures 27. Inwardly from the partition 20 the arm 6 is provided on the bottom and sides thereof with a suitable air intake notch 28. The size of the notch 28 may be controlled through the medium of an adjusting sleeve 29 slidable on the arm 6 to control the mixture of air with the gas entering the tube 5 so that obviously the arm 26 acts in the nature of a mixing chamber.

In operation then it will be seen that the burner may be suitable mounted within an incubator, and the supply of gas thereto is conveyed from the nozzle 23 into the arm 6 of the tube 5 and air admitted into the arm

6 through the notch 28 for obtaining the desired mixture and of course a match or the like applied to the burner head 12 will ignite the mixture and thus is obtained a suitable flame to throw off sufficient heat for heating the incubator.

It will be also apparent that the chimney is adjustable on the arm 7 further enhancing a burner of this character.

It is thought that from the foregoing description, taken in connection with the accompanying drawings a clear understanding of the operation, construction, utility and advantages of a burner of this character will be had by those skilled in the art without a more detailed description.

Even though we have herein shown and described the preferred embodiment of our invention, it is to be understood that the same is susceptible to changes fully comprehended by the spirit of the invention and as herein described, and the scope of the appended claims.

Having thus described our invention, what we claim as new is:

1. In a gas burner of the class described a substantially L-shaped tubular conduit opened at its upper end, a burner head on one end of said conduit, a chimney, means for adjustably mounting said chimney on said conduit at said one end, said conduit being internally threaded at its opposite end, a partition in said conduit inwardly from said threaded end, said partition having a conical recess therein merging at its apex into an opening extending through said partition, a jet including a head receivable in said recess, said head being perforated whereby gas from a suitable supply may be forced through said head into said opening for passage through the conduit to said burner head.

2. In a gas burner of the class described a substantially L-shaped tubular conduit opened at its upper end, a burner head on one end of said conduit, a chimney, means for adjustably mounting said chimney on said conduit at said one end, said conduit being internally threaded at its opposite end, a partition in said conduit inwardly from said threaded end, said partition having a conical recess therein merging at its apex into an opening extending through said partition, a jet including a perforated head receivable in said recess, said conduit inwardly from said partition provided with an air intake port, and a sleeve slidable on said conduit for controlling said port.

3. A gas burner comprising a conduit, a burner head on one end of said conduit, a chimney, means for adjustably mounting said chimney on said conduit at said one end, an apertured partition arranged in said conduit, intermediate the ends of the conduit, said partition provided with a recess, a jet extending into the conduit and including a head arranged concentrically of said recess, said conduit adjacent said partition provided with an air port, means for controlling the port, and said chimney including a cylindrical part provided with a sight opening, and a frusto-conical hood part having an opening in the apex thereof.

In testimony whereof we affix our signatures.

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