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1,500,513

E. C. MERRILL

GAS BURNER

Filed March 19, 1923

Fig. 1.

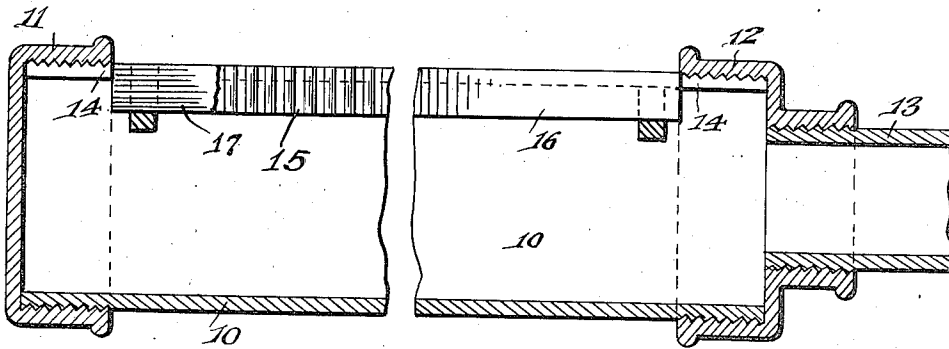


Fig. 2.

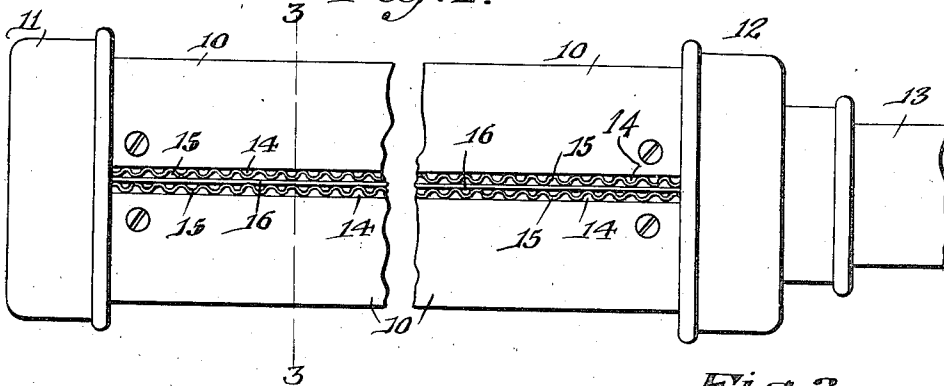


Fig. 3.

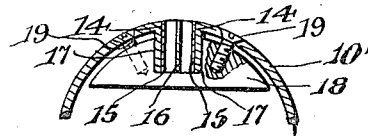
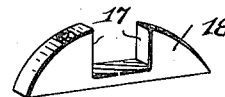


Fig. 4.



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GAS BURNER.

Application filed March 19, 1923. Serial No. 626,079.

To all whom it may concern:

Be it known that I, EDWIN C. MERRILL, a citizen of the United States, residing at Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Gas Burners, of which the following is a specification.

This invention relates to gaseous burners for heating, and has for one of its objects to simplify the construction and increase the efficiency, and utility of devices of this character.

Another object of this invention is to provide a device of this character which may be adapted without material structural change to burners of various sizes and capacity.

With these and other objects in view the invention consists in certain novel features of construction as hereinafter shown and described and then specifically pointed out in the claim, and in the drawings illustrative of the preferred embodiment of the invention—

Figure 1 is a longitudinal sectional elevation.

Figure 2 is a plan view.

Figure 3 is a transverse section through a portion of the device on the line 3—3 of Figure 2.

Figure 4 is a detached perspective view of the holding device or clip employed in the device.

The improved device includes a tubular metal body of any required length and diameter and represented as a whole at 10, and preferably of steel of sufficient thickness to withstand the strains to which it will be subjected when in use. The tubular body is closed at the ends, as by caps 11 and 12, and the intake for the gaseous element is represented at 13 and is connected into the cap 12.

The tubular body 10 is formed with a longitudinally directed opening or cleft 14, the edges of which are turned inwardly to provide the longitudinally extending rib 17 between which is supported a grid device of novel construction and including one or more metal strips 15 corrugated trans-

versely, as shown. These corrugated strips have an uncorrugated or straight strip 16 placed therebetween.

In connection with the device described there is used a plurality of notched holding members, one of which is represented at 18 in Figure 4, which holder members are disposed over the inner edges of the ribs 17 and held in place by clamp screws 19, operating through the body 10 contiguous to the ribs 17 and tapped into the member 18. By this means the corrugated strips are firmly supported in position through the action of the holding members 18 against the inturned ribs 17.

The corrugated strips 15 and the uncorrugated strip 16 will preferably be of refractory metal such as nickel alloy or the like which will withstand very high temperature, while the tubular body 10 will preferably be of a metal containing a relatively light content of carbon.

The improved device is simple in construction, can be of any required size and adapted to any required purpose where burners of this class are adapted to be employed.

The preferred embodiment of the invention is disclosed in the drawings and set forth in the specification, but it will be understood that modifications within the scope of the claimed invention may be made in the construction without departing from the principle of the invention or sacrificing any of its advantages.

Having thus described the invention what is claimed as new is:

A gaseous burner comprising a tubular body having a longitudinally directed opening in one side and the edges of the opening turned inwardly to form supporting ribs, a grid of corrugated strips disposed within said opening and between said ribs, a holding member notched to receive said inturned ribs and the corrugated strips therebetween, and clamp devices operating to bind said holding members to the inturned portions of the body.

In testimony whereof, I affix my signature hereto.

EDWIN C. MERRILL.