

E. R. HODGES.
GAS FLAME SPREADER.
APPLICATION FILED OCT. 10, 1910.

1,069,783.

Patented Aug. 12, 1913.

Fig - 1 -

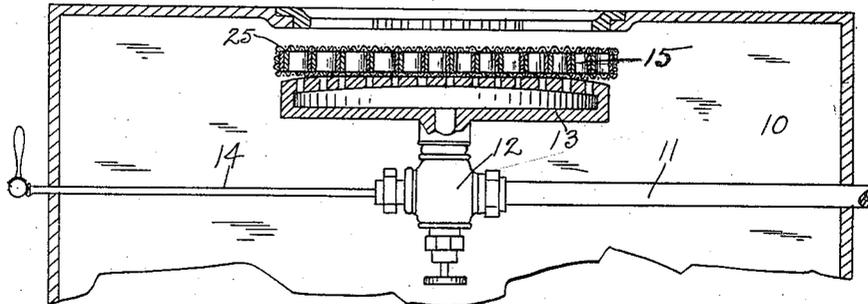


Fig - 2 -

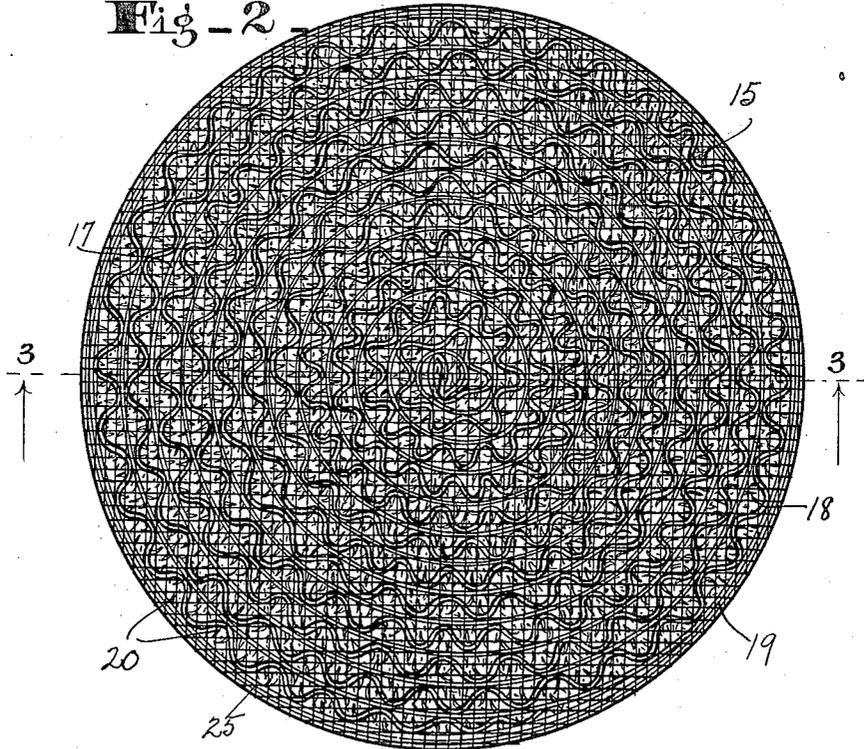
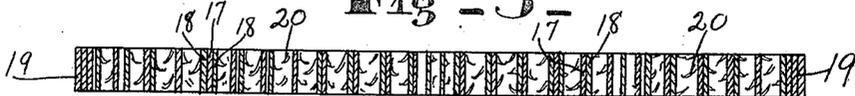


Fig - 3 -



WITNESSES:

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GAS-FLAME SPREADER.

1,069,783.

Specification of Letters Patent. Patented Aug. 12, 1913.

Application filed October 10, 1910. Serial No. 586,154.

To all whom it may concern:

Be it known that I, EDWARD R. HODGES, of Indianapolis, county of Marion, and State of Indiana, have invented a certain new and useful Gas-Flame Spreader; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings.

The object of this invention is to provide an improved gas flame spreader, a device adapted to be placed above a gas burner to and through which the flame from the burner is directed, whereby the flame will be spread and the mixture of air therewith be greatly promoted. Such increased admixture of air increases the heat of the flame from a given quantity of gas or gasolene. It increases the amount of air or oxygen which is consumed along with the gas. Furthermore, the spreader holds the heat and causes the flame to spread over greater surface than if the spreader were not used.

The chief feature consists in the manner of forming the spreader so that it may be conveniently and economically made.

The nature of the invention will be understood from the accompanying drawings and the following description and claim.

In the drawings, Figure 1 is a central vertical section through a portion of a gas stove with the lower part broken away and showing the gas spreader in place. Fig. 2 is a plan view of the spreader. Fig. 3 is a central cross section of the same on the line 3-3 of Fig. 2 with the wire covering removed.

There is shown herein a gas stove 10 with a gas pipe 11, valve chamber 12, burner 13, and valve rod 14. The spreader 15 lies upon the burner 13.

The spreader is formed in the following manner. Upon a flat sheet of asbestos 17, a corrugated sheet 18 is placed, thus making a compound sheet. Then the compound sheet is rolled into a roll so that the length of the roll will be for the full width of the sheets. The roll is then surrounded by an outer rim portion 19 formed of a series of flat sheets so as to make the periphery of the roll thick and strong. Then the roll is treated so as to secure the sheets together and form a strong structure. The roll is then sawed into sections half an inch thick, more or less, and the saw tears the fiber of the asbestos so as

to form flakes 20 of asbestos on each of the sawed edges. The asbestos thus formed extends laterally on and from the sawed edges of the strips. The spreader thus formed is stiff, strong and light, and therefore, easy to handle. It has a large number of vertical openings or perforations between the coiled strips and the corrugated strips for the passage of flame and air, and the lower edges of these various strips tend to deflect the flame and spread it so that the heat and flame pass up through the spreader in a wider body than if the spreader were not present, and increased combustion of air gives the flame proportionately greater heat. This is promoted by the asbestos referred to. Not only does it spread the flame and increase the combustion of air, but the spreader itself retains the heat and tends to superheat the mixture formed by the fuel and the air, and thus also promote its better combustion. In order to protect the asbestos spreader in shipping and handling and also to cooperate therewith in spreading the flame, a wire covering 25 envelops the asbestos spreader, as shown.

By placing the corrugated sheet upon the flat sheet and coiling the same into a roll and securing the same together and then sawing the roll into sections to make the spreader, the construction of the spreader is rendered possible, practical and economical so that the same may be suitably manufactured in large numbers for the market and at low prices.

What I claim as my invention and desire to secure by Letters Patent is:

A flame spreader for gas burners formed of a flat strip of asbestos and a corrugated strip of asbestos coiled and secured together so that the corrugated strip will lie between the coils of the flat strip and provide vertical perforations through the spreader, and a wire fabric enveloping said structure, substantially as set forth.

In witness whereof, I have hereunto affixed my signature in the presence of the witnesses herein named.

EDWARD R. HODGES.

Witnesses:

G. H. BOINK,
J. H. WELLS.