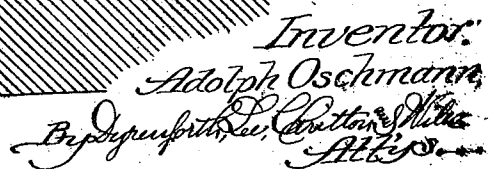


FUEL SAVER.

1,415,607.

2 SHEETS—SHEET 1.



FUEL SAVER.

Patented May 9, 1922.

2 SHEETS—SHEET 2.

Fig. 3.

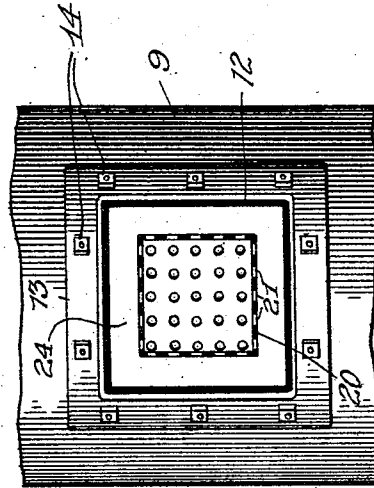
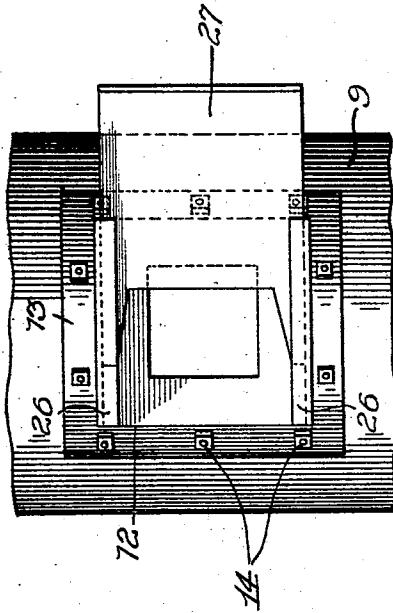


Fig. 4.

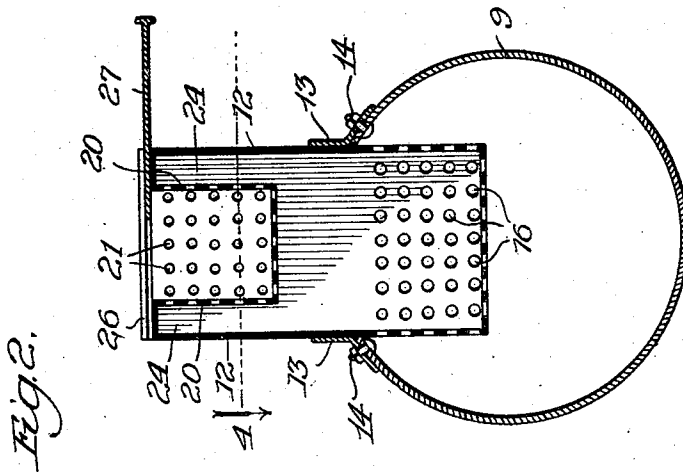


Fig. 2.

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UNITED STATES PATENT OFFICE.

ADOLPH OSCHMANN, OF CHICAGO, ILLINOIS.

FUEL SAVER.

1,415,607.

Specification of Letters Patent.

Patented May 9, 1922.

Application filed June 7, 1920. Serial No. 387,046.

To all whom it may concern:

Be it known that I, ADOLPH OSCHMANN, a citizen of the United States, residing at 3032 W. North Ave., Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Fuel Savers, of which the following is a specification.

This invention relates to improvements in fuel savers, and is especially adapted for use in connection with boilers, furnaces, stoves, and all coal consuming devices.

In that form of device shown in the accompanying drawings, Fig. 1 is a vertical sectional view of a furnace with my improved fuel saver attached. Fig. 2 is a vertical sectional view on the line 2 of Fig. 1 looking in the direction indicated by the arrow. Fig. 3 is a top plan view of the device. Fig. 4 is a horizontal sectional view on the line 4 of Fig. 2 looking in the direction indicated by the arrow.

As shown in said drawings 5 indicates in general an ordinary house furnace, the coal therein being indicated by 6. 7 is a short section of smoke pipe leading from the combustion chamber to the outer casing 8 of the furnace, having joined to its end the smoke pipe 9 leading to the chimney flue 10.

My fuel saver comprises a rectangular-shaped box 12 inserted in the smoke pipe 9 in a hole of proper size, with substantially one half of the box extending into the smoke pipe, and the other half on the outside. The box is provided with flanges 13 attached to its sides in any suitable manner, and fastened to the smoke pipe 9 by means of the bolts 14, or in any other suitable manner in order to hold the device firmly in place.

That part of the box 12 extending into the smoke pipe 9 is provided with perforations 16, 16. The end of the box 12 on the outside of the smoke pipe 9 is provided with a re-entrant perforated box 20 substantially cubical in shape, with its outer face open, and its other five faces perforated as indicated by 21, 21. The box 20 is substantially

smaller than the width of the box 12 in order to provide the spaces 24, 24 between the walls.

The outer end of the box 12 is provided on two of its sides with guides 26, 26 adapted to accommodate the slide 27 which may be used for adjusting the opening in the device.

30 indicates a damper of ordinary construction in the smoke pipe 9.

In the operation of my improved device cold air enters through the perforations 21, escapes through the perforations 16, and, being cool, drops to the bottom of the smoke pipe 9 whence it, or a part of it, finds its way back through the smokepipe, as indicated by arrows in Fig. 1, to the combustion chamber, where it will assist the combustion and aid in the consumption of smoke.

As shown in the drawings the fuel saver should be placed in the smoke pipe, preferably, as near to the furnace as possible, but behind the damper. Although I have shown a device of a certain form and construction, and located in a certain position, it is obvious that, without departing from the spirit of this invention, variations and modifications in the form, construction, and location of the device may be made. It is my intention therefore, to claim in the appended claim all novelty inherent in my invention as broadly as possible in view of the prior art.

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

The combination with a smoke pipe of an air feeding device comprising a hollow open ended box-shaped member partially inserted into the smoke pipe through the wall thereof the inserted portion being perforated a second similarly shaped hollow member having its walls perforated inserted within the open end of the first mentioned member and having its walls spaced from the walls of the first mentioned member and means for varying the opening in the first mentioned member.

In testimony whereof I have hereunto set my hand and seal this 2nd day of June, 1920.
ADOLPH OSCHMANN. [L. s.]