

No. 678,863.

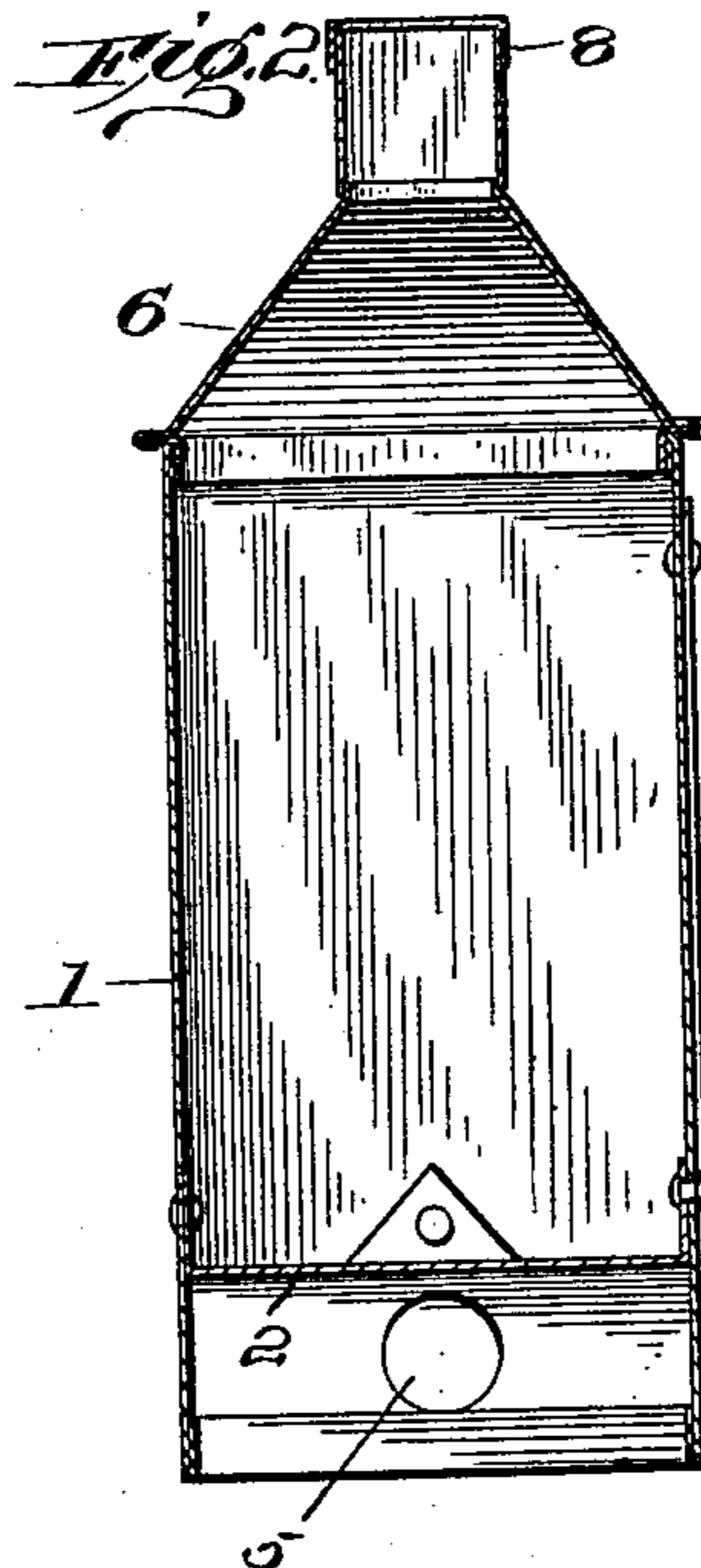
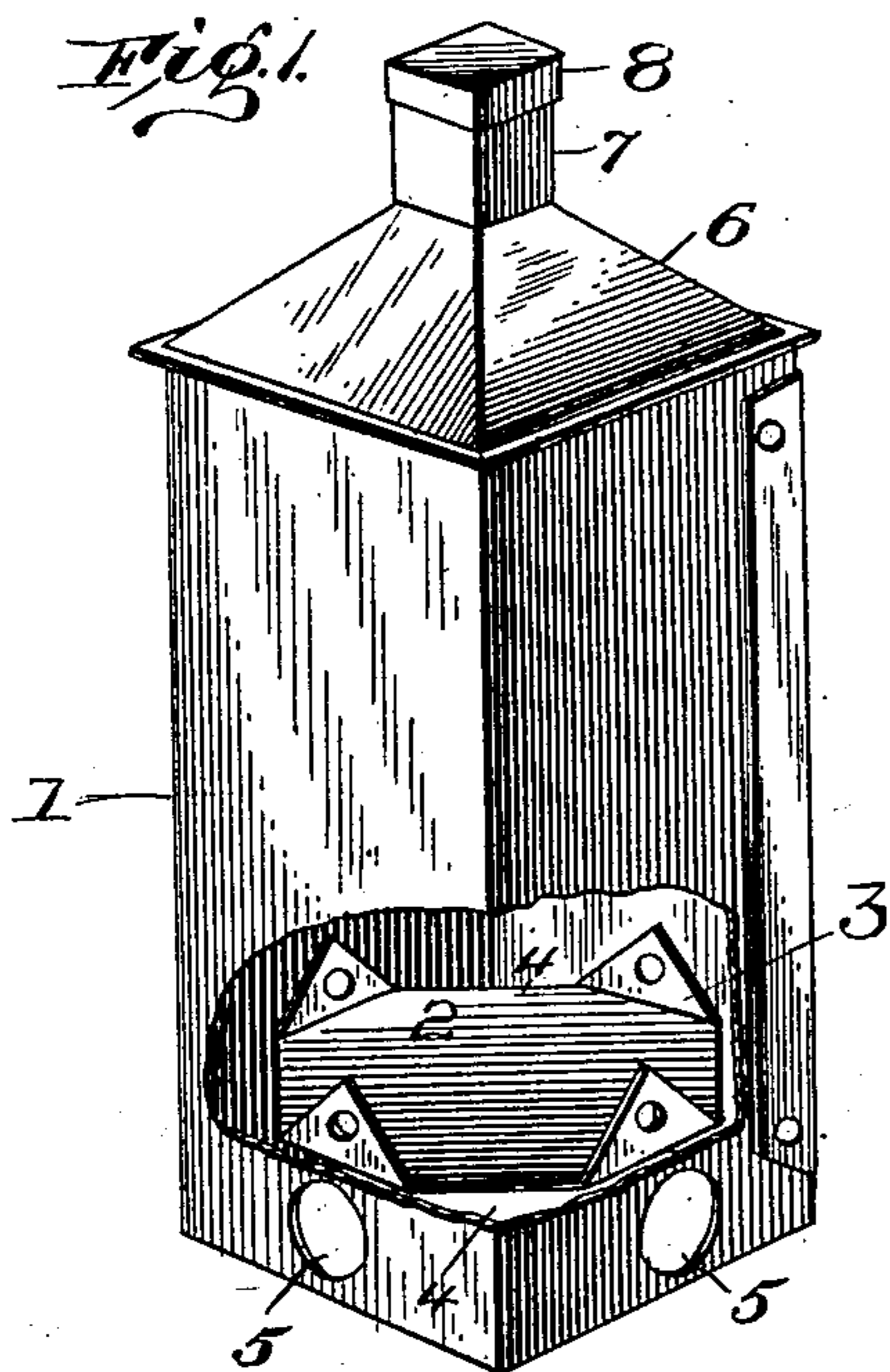
Patented July 23, 1901.

A. W. COX & D. M. LELAND.

REFUSE BURNER.

(Application filed May 7, 1900.)

(No Model.)



WITNESSES
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UNITED STATES PATENT OFFICE.

ALBERT WHITE COX AND DAVIS M. LELAND, OF CHICAGO, ILLINOIS.

REFUSE-BURNER.

SPECIFICATION forming part of Letters Patent No. 678,863, dated July 23, 1901.

Application filed May 7, 1900. Serial No. 15,748. (No model.)

To all whom it may concern:

Be it known that we, ALBERT WHITE COX and DAVIS M. LELAND, citizens of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Refuse-Burners; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The invention relates to improvements in burners or stoves, especially that class for burning or destroying trash or refuse.

It has for its object more particularly to promote combustion, to increase the efficiency or burning capacity of the stove or burner, to create air circulation through the contents of the stove or burner, and to otherwise promote facility, convenience, and utility.

It consists of a casing polygonal in cross-section and having an elevated bottom, with angles corresponding to those of the casing, the angular portions of the bottom being disposed alternately with those of the casing, whereby spaces are formed between the bottom and casing, said angular portions being bent to form means to aid in the attachment of the bottom to the casing, substantially as hereinafter more fully disclosed and specifically pointed out by the claim.

In the drawings, Figure 1 is a broken perspective view of one form of our invention. Fig. 2 is a longitudinal section thereof.

In carrying out the invention we provide a casing or chamber to contain the trash or refuse to be destroyed or burned polygonal in horizontal or cross section and having a bottom 2, elevated or arranged a short distance above the lower edge of said receptacle or chamber. Said bottom is preferably octagonal or polygonal in outline, thus being formed with angles corresponding to those of the casing or chamber 1 and having, preferably, bent or upturned lateral extensions 3 3, riveted or fastened to the inside of the casing or chamber. Said bottom has its oblique edge portions arranged opposite the corners or angles of said casing and the bent or upturned portions or extensions secured to the sides of said casing, the angular portions of

said bottom thus alternating with the corresponding angular portions of the casing. By this construction and arrangement of parts air passages or openings 4 are provided at the edges of said bottom, while by the relative arrangement of said openings they are isolated from and thus almost wholly taken out of the range of said contents, preventing the dropping or falling therethrough of greater or less portions of said contents, as would otherwise occur, as is apparent. Also by this arrangement of parts, taken in connection with the construction of said casing, the contents will be prevented from packing or massing into the latter in alinement with the air passages or openings in the bottom at the corners, as is obvious, thus providing, as it were, air ducts or passages along the inner corner edges or angles of the casing in continuation of the aforesaid bottom passages or openings. Thus an air circulation is created which is disseminated throughout the mass or contents of the burner, promoting combustion and increasing the efficiency or burning capacity of the stove.

The casing or chamber 1 has a series of lateral initial air openings or inlets 5, arranged relatively below the bottom 2 to admit air below the latter, the air finally passing up through the openings or passages 4 in said bottom. It will be noted that with the use of the elevated bottom, with its cut-away corner portions opposed to the inner or corner angles or portions of the closure or casing, in addition to setting up an air circulation or the thus improvised air-passages at these points, the ash resulting from the combustion of the contents of such casing is permitted to drop below said bottom, and an ash-chamber is thus provided under said bottom, within and inclosed by said casing.

The casing or chamber 1 is adapted to be fitted or provided with a readily-removable cover 6, conical or pyramidal in general outline, with its upper or tapered end terminating in a tubular extension or neck 7. By means of said cover or top when in position upon said casing or chamber it is apparent that the draft and smoke will be concentrated and combustion increased or promoted and the smoke consumed, thus further augment-

ing the heating or burning capacity of the burner or stove and obviating the formation of smoke. The cover or top has its neck or tubular portion adapted to be fitted with a
5 removable cap 8, which is retained in position thereon when the contents of the burner or chamber are not fired, said contents thus being protected from the weather and kept dry previous to the burning thereof.
10 It will be understood that the cover or top 6 is designed to be conformed to the general cross-sectional contour of the casing or chamber of the burner or stove. For instance, if the chamber or casing is cylindrical in cross-
15 section then said cover or top is to be of corresponding cross-section. As shown herein, as observed, the cover or top is angular in cross-section, the casing or chamber being of such cross-section.
20 Having thus fully described our invention,

what we claim, and desire to secure by Letters Patent, is—

In a refuse-burner, the combination of a casing polygonal in cross-section, and an elevated bottom having angles corresponding to 25 those of the casing, the angular portions of the bottom, alternating those of the casing, whereby spaces are formed between the bottom and the casing; said angular portions being bent to form means to aid in the attach- 30 ment of the bottom to the casing, substantially as set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

ALBERT WHITE COX.
DAVIS M. LELAND.

Witnesses:

JOHN L. MANNING,
ANNIE M. JOHNSON.