

No. 764,882.

PATENTED JULY 12, 1904.

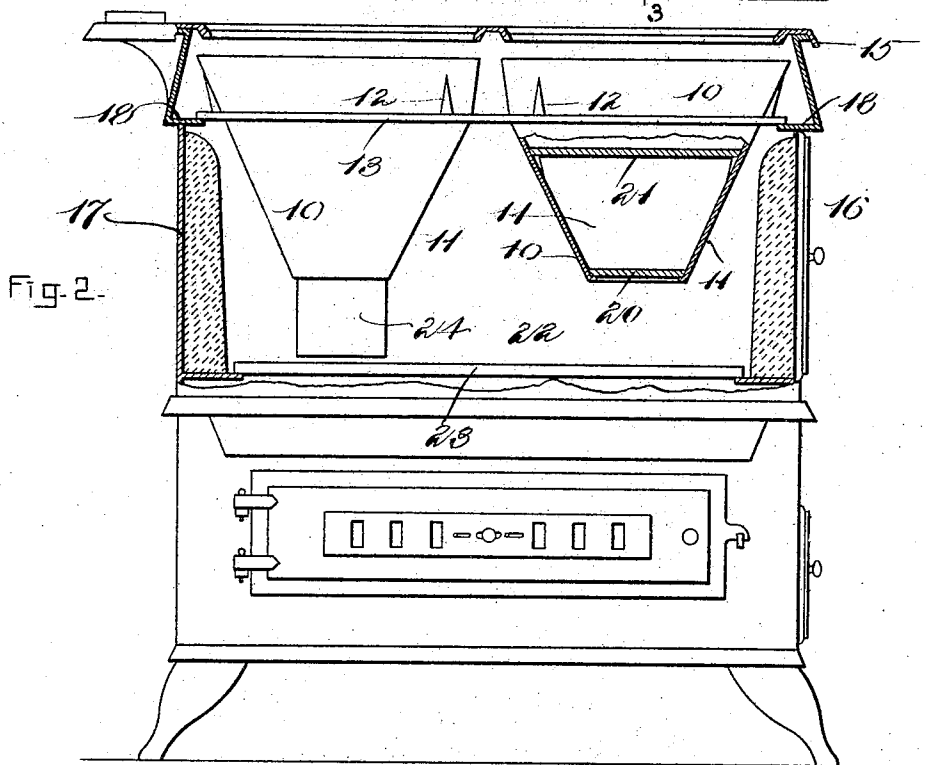
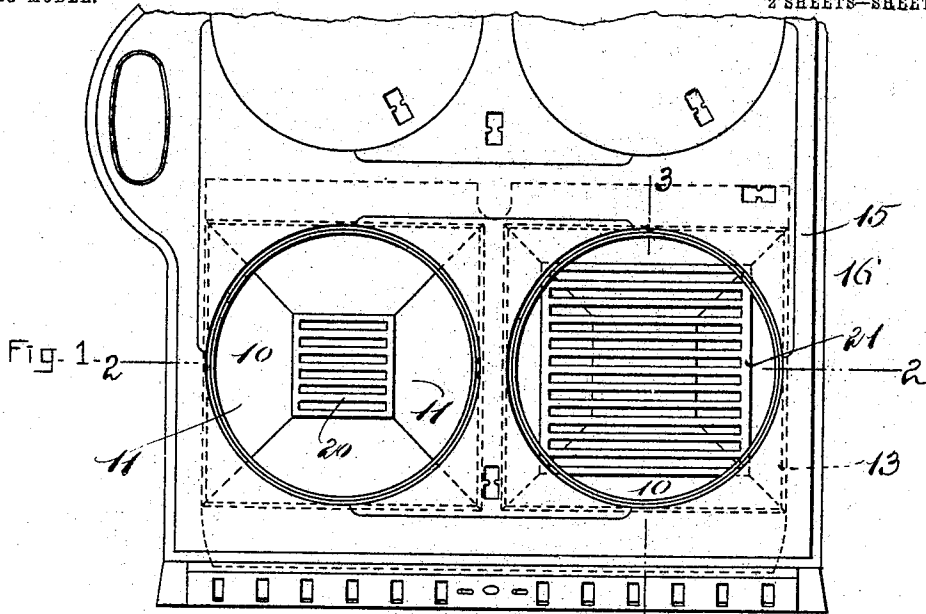
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HEAT CONCENTRATING ATTACHMENT FOR COOKING STOVES.

APPLICATION FILED AUG. 28, 1901. RENEWED DEC. 4, 1903.

NO MODEL.

2 SHEETS-SHEET 1.



WITNESSES:

Ralph H. Mutter.
 Charles S. Gooding.

INVENTOR:

James E. Compton,
 by his Attorney, Oscar H. Bragdon.

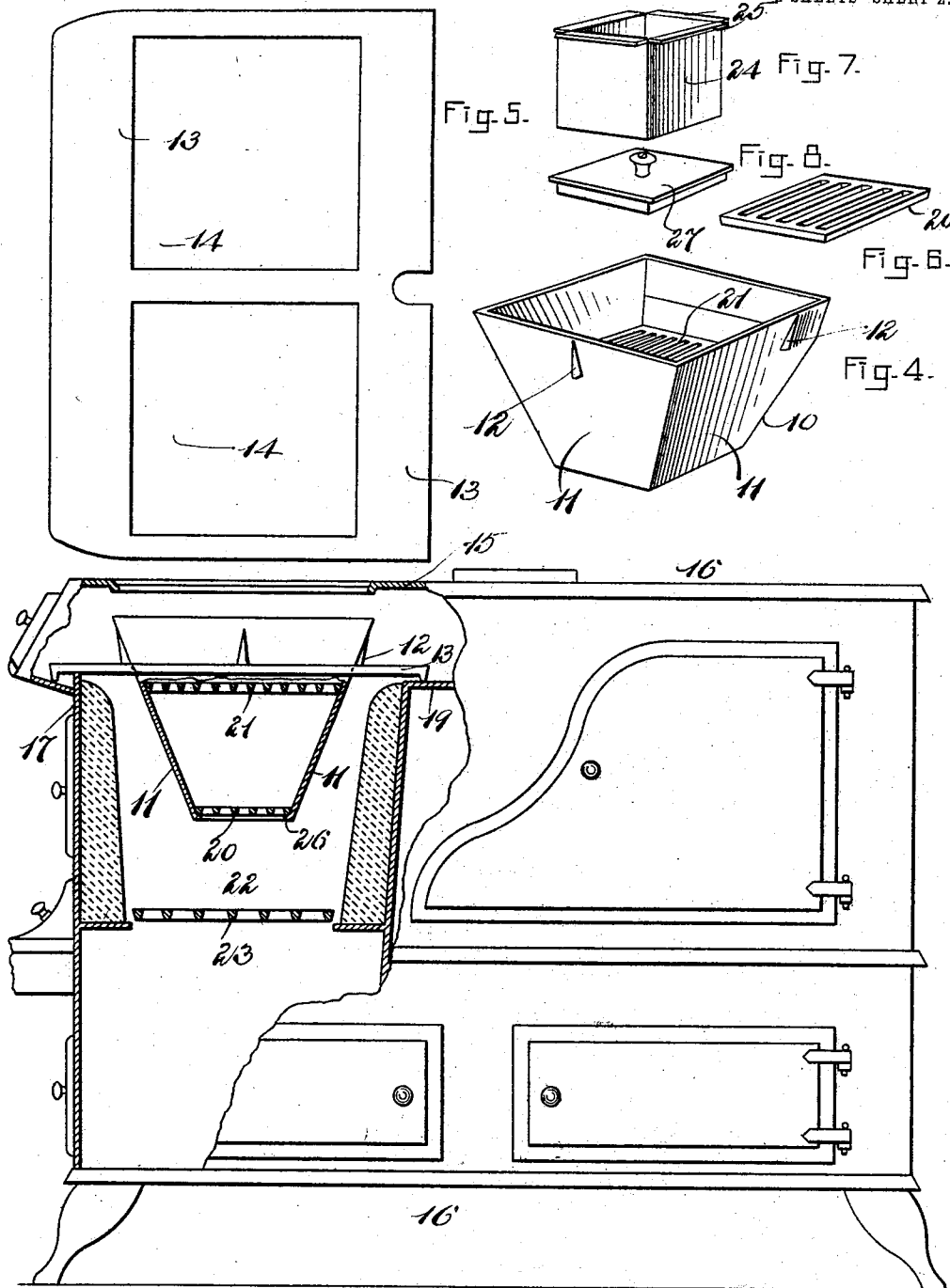
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Fig. 3.

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UNITED STATES PATENT OFFICE.

JAMES E. COMPTON, OF LYNN, MASSACHUSETTS.

HEAT-CONCENTRATING ATTACHMENT FOR COOKING-STOVES.

SPECIFICATION forming part of Letters Patent No. 764,882, dated July 12, 1904.

Application filed August 28, 1901. Renewed December 4, 1903. Serial No. 183,830. (No model.)

To all whom it may concern:

Be it known that I, JAMES E. COMPTON, a subject of the King of Great Britain, residing at Lynn, in the county of Essex and State
5 of Massachusetts, have invented new and useful Improvements in Heat-Concentrating Attachments for Cooking-Stoves, of which the following is a specification.

The object of this invention is to provide
10 an attachment for cooking-stoves whereby the fire and heat may be concentrated within a small area.

The attachment is especially adapted to be used in warm weather, when a large coal fire
15 in the ordinary fire-box of a cooking-stove is undesirable.

By my improved device I obtain a very hot fire, which may be graduated as to area and as to the intensity of heat with the greatest
20 nicety.

The invention consists in the combination and arrangement of parts set forth in the following specification, and particularly pointed out in the claims thereof.

25 Referring to the drawings, Figure 1 is a plan view of an ordinary cooking-stove, a portion thereof being broken away to save space in the drawings and the two front covers of the stove being removed to disclose my heat-concentrating attachment in position therein.
30 Fig. 2 is a front elevation of the range, partly broken away and shown in section on line 2 2 of Fig. 1. Fig. 3 is a side elevation of the cooking-stove, showing my improved device partly in section on line 3 3 of Fig. 1. Fig.
35 4 is a perspective view of the detachable fire-box. Fig. 5 is a plan view of the plate by which the fire-box is supported in the fire-box of the range. Fig. 6 is a perspective view
40 of one of the grates used in the detachable fire-box. Fig. 7 is a perspective view of the detachable flue adapted to be attached to the lower end of the detachable fire-box. Fig. 8 is a perspective view of a detachable bottom
45 adapted to be placed in the detachable fire-box when the same is not in use.

Like numerals refer to like parts throughout the several views of the drawings.

In the drawings, 10 is my improved detach-
50 able fire-box. Said fire-box is open at the

top and bottom and is preferably of the form of a truncated four-sided pyramid, the side walls 11 thereof converging toward the bottom. Upon the exterior of each of the side walls 11 is an ear 12. A plate 13 has two
55 holes 14 14 therein, each of which is adapted to receive one of the detachable fire-boxes 10, said fire-boxes projecting downwardly through and filling the holes 14 and the ears 12 resting upon the upper surface of the plate
60 13. The plate 13, with the fire-boxes in position thereon, is placed beneath the top plate 15 of the range 16 and rests upon the front plate 17, side flanges 18 18, and the top 19 of the oven of said range, thus entirely closing
65 the fire-box of the range and forcing the heated gases and products of combustion to pass through the detachable fire-boxes 10 10.

In order that fires of different areas may be built in the fire-box and also in order that
70 said fires may be built at different distances from the top or bottom of said fire-box, I provide detachable gates 20 21 of different sizes, which are placed within the interior of the fire-box 10. The grate 20, being small,
75 descends to the bottom of said fire-box, and the grate 21, being larger, does not descend to so great a distance in the fire-box 10. It is evident that when the small grate 20 is used a fire of small area may be built and also that
80 when the grate 21 is used the area of the fire will be larger, but that for the same depth of fire the distance from the top of the fire-box will be less.

I prefer to use charcoal in building a fire in
85 my improved fire-box, and this charcoal fire may be used alone or in addition to the coal fire in the fire-box 22 upon the range-grate 23.

A detachable flue is provided, having flanges
90 25 thereon, the same being arranged to rest upon the flanges 26 at the bottom of the fire-box 10, said flue extending downwardly toward the range-grate 23, thus taking the heated gases from the fire-box of the range upwardly
95 to the charcoal fire in the fire-box 10, the result being complete combustion and a very hot concentrating flame.

By using two detachable fire-boxes I may have a small fire in one and a fire of larger area
100 in the other, as shown in Fig. 1.

When the fire-box is not in use, I close the lower end thereof with a detachable plate or stopper 27.

The advantages to be derived from the use of my fire-box are as follows: great economy of fuel, reduced area to be heated and less area to diffuse heat through the apartment in which the range is located in hot weather, and the practicability of building fires of different areas at different distances from the top of the detachable fire-box, and consequently from the top plate of the range.

It is evident that while I have made my detachable fire-boxes rectangular in outline the same may be made with a varying number of sides, from three upward, or the fire-boxes may be made cylindrical or conical in shape without departing from the spirit of my invention.

Having thus described my invention, what I claim, and desire by Letters Patent to secure, is—

1. A heat-concentrating attachment for cooking-stoves comprising a detachable fire-box, open at the top and bottom thereof, the walls of said fire-box converging downwardly, a flat plate provided with a hole, said fire-box projecting through and filling said hole, and a series of grates of different sizes supported

upon the converging sides of said detachable fire-box. 30

2. A detachable fire-box, open at the top and bottom thereof, the sides of said fire-box converging downwardly, and a detachable flue extending downwardly from the lower end of said fire-box, substantially as described. 35

3. A detachable fire-box, open at the top and bottom thereof, the sides of said fire-box converging downwardly, a detachable flue extending downwardly from the lower end of said fire-box, and a fire-grate supported upon said converging sides, substantially as described. 40

4. A detachable fire-box, open at the top and bottom thereof, the sides of said fire-box converging downwardly, a detachable flue extending downwardly from the lower end of said fire-box, a fire-grate supported upon said converging sides, and a flat plate provided with a hole, said fire-box projecting through and filling said hole. 45 50

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JAMES E. COMPTON.

Witnesses:

OSCAR H. BRAGDON,
HORACE G. PENDER.