

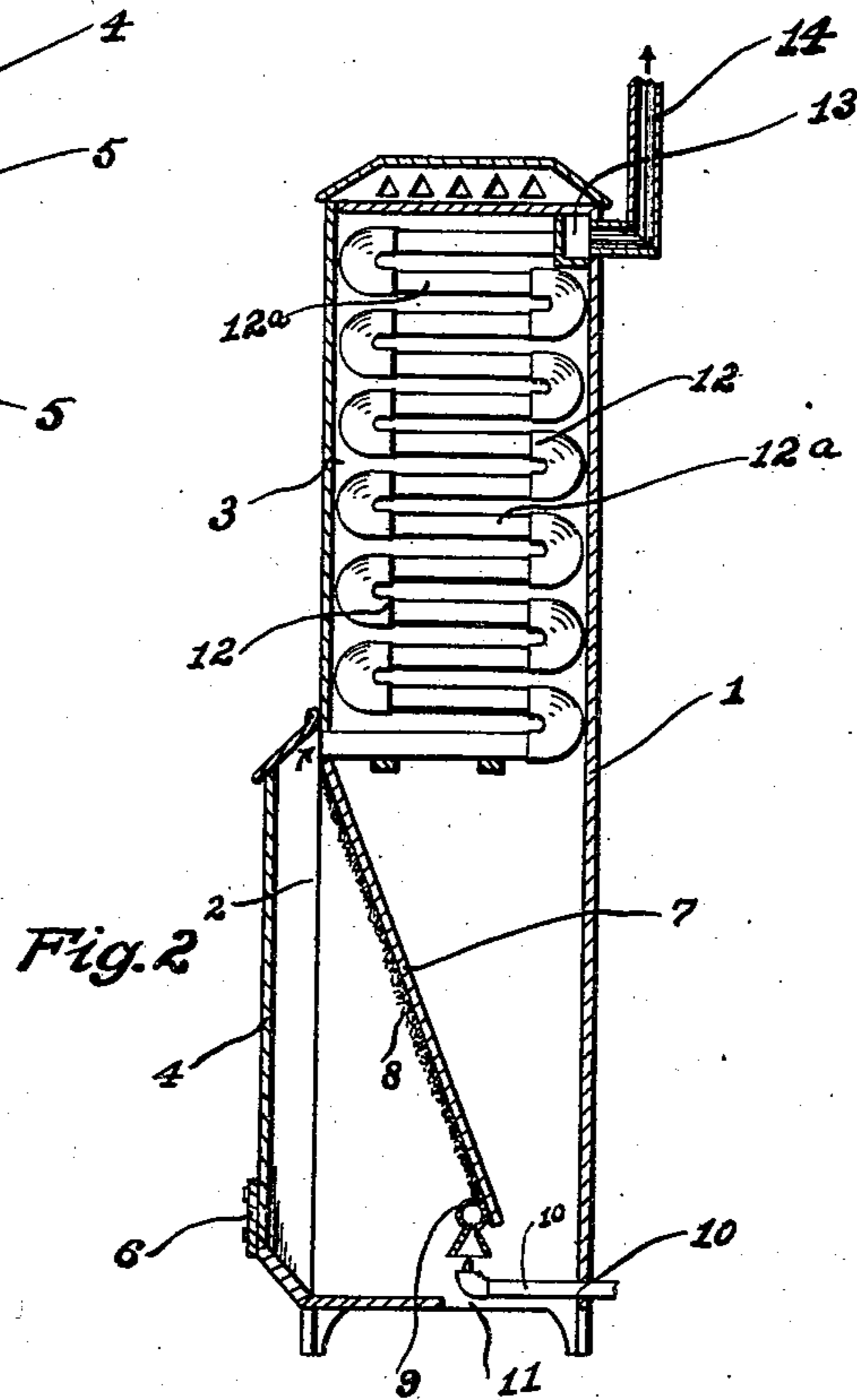
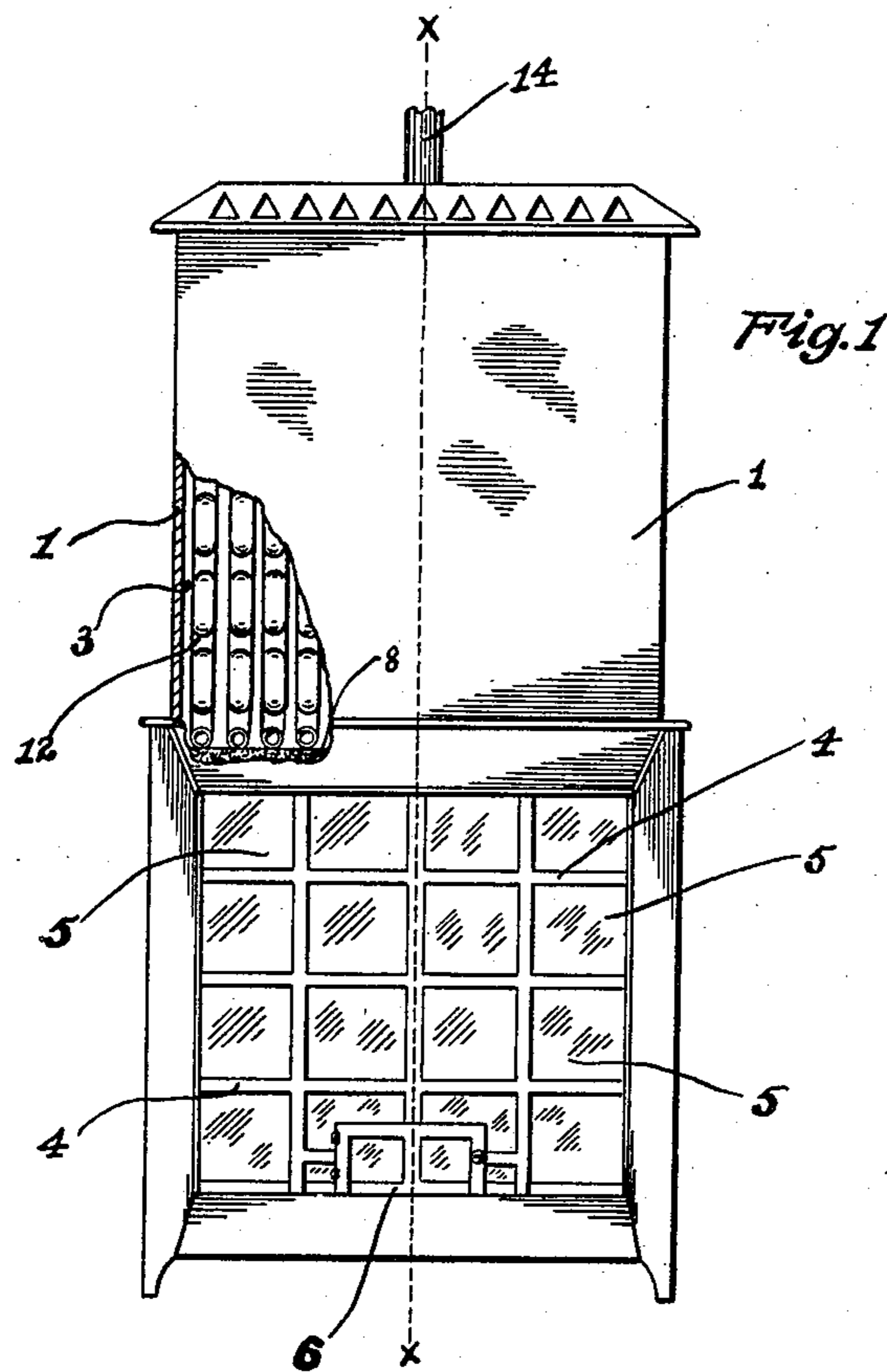
No. 710,162.

Patented Sept. 30, 1902.

G. R. MOON.
GAS HEATING STOVE.

(Application filed Jan. 29, 1902.)

(No Model.)



WITNESSES:

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GEORGE R. MOON, OF COLUMBUS, OHIO.

GAS HEATING-STOVE.

SPECIFICATION forming part of Letters Patent No. 710,162, dated September 30, 1902.

Application filed January 29, 1902. Serial No. 91,665. (No model.)

To all whom it may concern:

Be it known that I, GEORGE R. MOON, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented a certain new and useful Improvement in Gas Heating-Stoves, of which the following is a specification.

My invention relates to the improvement of gas heating-stoves; and the objects of my invention are to provide a simple, reliable, and effective stove construction wherein a comparatively large heating-surface is provided, to so construct my improved stove as to subject a comparatively large heating-surface to the heat generated from the burner without the necessity of drawing the heat downward, and to produce other improvements, the details of which will be more fully pointed out hereinafter. These objects I accomplish in the manner illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation of my improved stove, showing a portion of the same broken away for the sake of clearness in illustration; and Fig. 2 is a central vertical section on line *x x* of Fig. 1.

Similar numerals refer to similar parts throughout the several views.

In carrying out my invention I employ an upright stove body or casing 1, the lower portion 2 of which may be designated as the "combustion-chamber" and the upper portion 3 as the "heat-chamber," said combustion-chamber being preferably extended forwardly, as shown. The forward side of the combustion-chamber 2 is, as indicated in the drawings, preferably formed with an open metallic framework 4, the openings therein being filled with isinglass or other transparent or semi-transparent material, as indicated at 5. The lower portion of the stove-front thus formed may be provided with a suitably-hinged door 6. Within the combustion-chamber I provide a burner-plate 7, which inclines from a point in the upper and forward portion of said chamber to a point in the lower and rear portion thereof, this plate being preferably covered with mineral wool or asbestos, as indicated at 8. 9 represents a suitable form of gas-burner, which is arranged in front of the lower portion of said burner-plate, and 10 represents the gas-supply pipe therefor. The

under side of the stove-body is formed with a suitable air-inlet opening 11. In the upper portion 3 of the stove-body I provide a plurality of vertically-arranged and parallel flue-pipes 12, each of said flue-pipes comprising a number of comparatively short horizontal pipe-sections 12^a, arranged one above the other, one of said pipe-sections having one of its ends coupled with the section above and its remaining end coupled with the section below, thus providing a sinuous or crimped flue-body. Each of the flue-pipes thus formed has its lower section or member terminating above the burner-plate 7 and in communication with the upper and forward portion of the lower section 2 of the stove. The upper ends of each of the flue-pipes lead, as indicated, into a single transverse flue 13 in the upper end and rear portion of the casing-section 3, and this transverse flue 13 is provided with a suitable outlet-pipe 14. From the construction which I have herein shown and described it will be seen that the heat and products of combustion which rise from the burner 9 will enter the lower arms or sections of the flues 12, pass through the latter into the flue 13, and thence out through the pipe 14. Owing to the sinuous or crimped form of the flue-pipes 12 it will be seen that the heat in its ascent to the outlet 14 will act upon a comparatively large area or flue-pipe surface and that the additional heating or heat-radiating surface thus provided will greatly add to the efficiency of the stove.

As is well known, it is common to increase the heating capacity of a stove by providing heat-flues therein which extend upward and thence downward and lead out through the lower portion of the stove-body; but in this class of gas heating-stoves it is found that owing to the natural tendency of the heated products of combustion to rise difficulty is experienced in drawing these products downward and thence outward. By the construction and operation which I have shown and described it will be observed that while the products of combustion are retarded somewhat, owing to the sinuous forms of the flues, the outlet is at the upper end of the stove-body and no attempt is made to draw said products downward. By disposing the inclined burner-plate in such position that its upper end ter-

minates in line with the inner line of the bulge in the front of the casing the flame is directed upward and outward toward the upper end of the space formed by said bulge, 5 and the draft through this space serves to better conduct the heat in and around the flues.

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

10 The gas heating-stove herein described comprising an upright casing having an opening in its bottom and its front bulged and formed of open lattice-work with hinged door and transparent panels, an inclined 15 burner-plate in the lower portion of said casing with its upper end terminating in line with the inner line of said bulge, a burner ad-

jacent the lower end of said burner-plate, a supply-pipe leading into the casing beneath said burner over said opening in the bottom 20 of the casing, a transverse flue at the end of said casing and a series of vertically-arranged and parallel flue-pipes having their lower ends communicating with the lower portion of the casing upon one side of the burner- 25 plate and their upper ends communicating with said transverse flue, the said pipes being of sinuous form and the whole arranged to serve substantially as herein shown and described.

GEORGE R. MOON.

In presence of—

A. L. PHELPS,
W. L. MORROW.