

STOVE.

959,026.

2 SHEETS—SHEET 1.



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STOVE.

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2 SHEETS—SHEET 2.

Fig. 2.

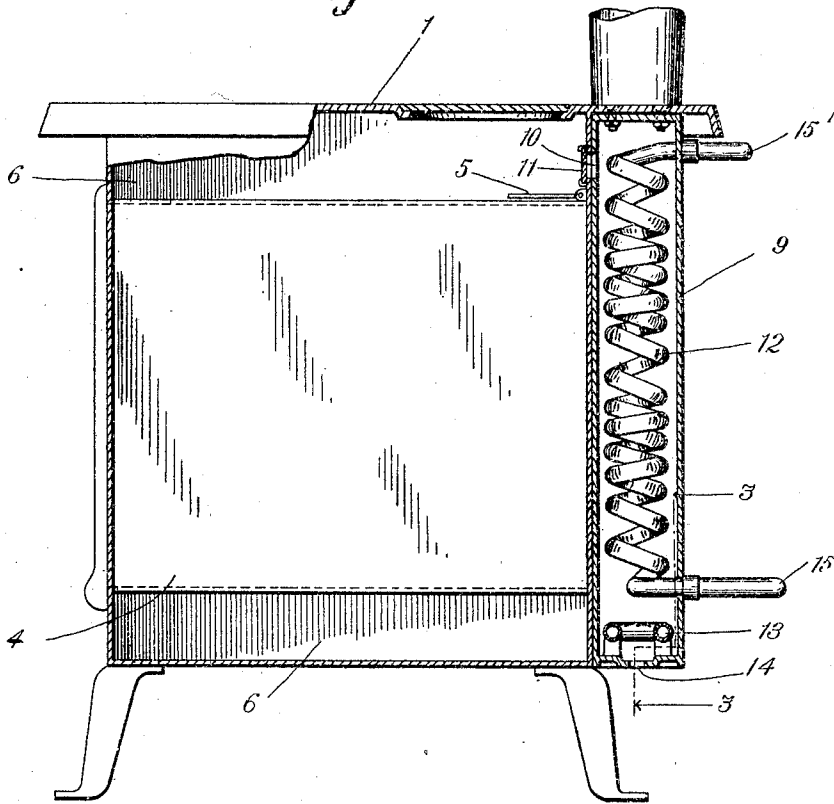
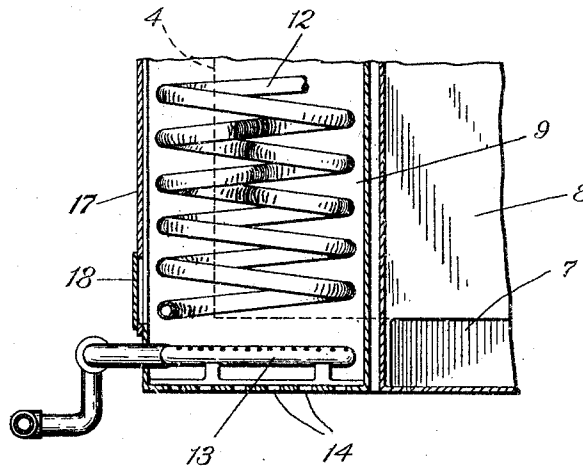


Fig. 3.



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UNITED STATES PATENT OFFICE.

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STOVE.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ARTHUR L. PIPER, a citizen of the United States of America, and a resident of the city of Seattle, in the county of King and State of Washington, have invented certain new and useful Improvements in Stoves, of which the following is a specification.

This invention relates to an improved stove combining chambers for supporting independent fires, and the primary aim thereof is to provide a solid fuel range with an auxiliary combustion chamber including a fluid fuel water heater.

The invention is particularly directed to the arrangement of the auxiliary chamber whereby an effective degree of heat is imparted to the stove body in operating the water heater, and it resides in certain novel features in the constructions, combinations and arrangement of parts as hereinafter set forth and succinctly defined in the appended claims.

With reference to the accompanying drawings, wherein like reference numerals designate corresponding parts throughout: Figure 1 is a horizontal section of a stove embodying the features of my invention in such form as now preferred by me. Fig. 2 is a vertical section on line 2—2 of Fig. 1, and Fig. 3 is a fragmentary section on line 3—3 of Fig. 2.

The stove body 1, as shown is provided with the usual fire chamber 2, water back 3, and oven 4 about which, when the damper 5 is closed, the products of combustion pass in the flue 6 to and through the passage way 7 into the vertical back flue section 8.

In the present practice of my invention I provide a combustion chamber, as 9, in the form of an attachment, which as shown is applied to the back wall of body 1 proximately the flue section 8. In this position the chamber, in operation, not only radiates heat to oven 4 but also to flue section 8 and thereby promotes draft through the stove body.

Chamber 9 has suitable connection with flue 6 through openings, as 10, preferably provided in the separating wall portions thereof adjacent to the top of body 1. A damper, as 11, is slidably mounted in the stove body 1 to partly or wholly close the openings 10, as may be desired.

In conjunction with chamber 9 I have shown a water heater comprising a coil 12

for circulating water and a burner 13 for supporting fluid fuel as gas, in combustion. This burner comprises opposite perforated tube sections supported from the bottom wall of the chamber in which openings as 14, are provided for ingress of air to promote more perfect combustion.

The coil 12 as will be observed is connected with circulating pipes 15 and 15', which are also connected with the water back 3 by lateral extensions 16 and 16' respectively, as clearly shown in Fig. 1.

Chamber 9 is closed at one end portion by a door 17, carrying on its lower portion a comparatively small door 18, which closes an opening therein, provided for introduction of an igniter to burner 13, as will be readily understood.

The fire chambers 2 and 9 may be operated independently or simultaneously as may be desired in conducting cooking operations or to heat water. The auxiliary chamber however, offers advantages for obtaining a quick fire for light cooking or rapid heating of the water.

Chamber 9, being arranged at the back of the stove beneath the top thereof, aside from being out of the way effects a heating of the oven by both direct radiation of its heat and by the passage of the escaping products of combustion through flue 6, which first pass over the oven, thereby heating the back lids of the stove, then around the same to the passage way 7, communicating with the vertical flue 8, as previously described.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent of the United States of America, is:

1. In combination with a stove having an oven, a flue extending from above to a point below said oven, and a chamber for solid fuel communicating with said flue, a vertical external flue section at the back of said stove communicating with said flue beneath said oven, an auxiliary heating chamber secured to the back of said stove in proximity to said vertical external flue section so as to radiate heat thereto and communicating with said flue, and a damper in said flue for cutting off communication with said auxiliary heating chamber.

2. A stove body having an oven and a flue extending over the top, one side, bottom and back of said oven, a chamber for solid fuel

communicating with said flue, and a chamber for fluid fuel communicating with said flue and extending alongside the back section thereof at the adjacent wall of said oven so
5 as to radiate heat both to said back section of the flue and to said oven.

3. A stove body having an oven and a vertical flue section forming in conjunction with the adjacent wall of the stove body an
10 external recess, a chamber for solid fuel communicating with said flue section, and a chamber for fluid fuel arranged in the external recess of the stove body so as to radiate heat to said flue section.

15 4. In combination with a stove having a chamber for solid fuel, an oven, a water

back, and a flue extending over the top, one side, bottom and back, of said oven, a chamber for fluid fuel arranged externally of the stove alongside the back section of said
20 flue at the adjacent wall of said oven, a water circulating coil in said liquid fuel chamber in communication with said water back, and a fluid burner arranged beneath said coil.

Signed at Seattle, Washington this 28
day of April 1909.

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