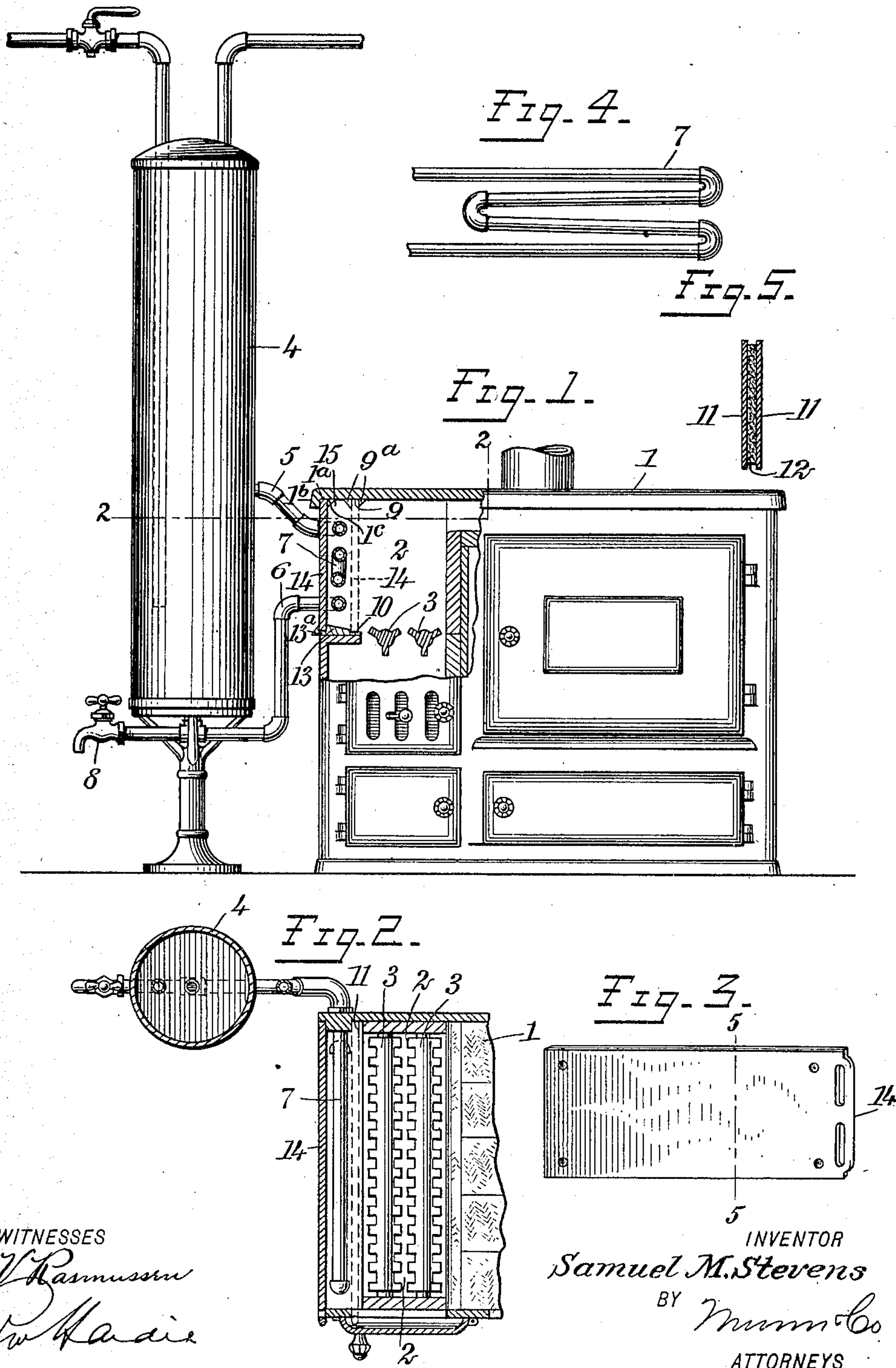


No. 860,420.

PATENTED JULY 16, 1907.

S. M. STEVENS.
WATER BACK SHIELD.
APPLICATION FILED SEPT. 25, 1906.



WITNESSES
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SAMUEL MERIT STEVENS, OF ASHEVILLE, NORTH CAROLINA.

WATER-BACK SHIELD.

No. 860,420.

Specification of Letters Patent.

Patented July 16, 1907.

Application filed September 25, 1906. Serial No. 336,131

To all whom it may concern:

Be it known that I, SAMUEL MERIT STEVENS, a citizen of the United States, and a resident of Asheville, in the county of Buncombe and State of North Carolina, have invented a new and Improved Water-Back Shield, of which the following is a full, clear, and exact description.

My invention relates to water backs for kitchen ranges, and has for its object to provide means for controlling the operation of such backs, and to render them inoperative when desired.

The heat radiated by a hot water boiler connected with a water back attached to a range frequently renders a kitchen uncomfortable especially in the summer, and in many cases the water backs are entirely removed from the range at such time, and users frequently find it necessary to open the hot water faucet connected with the hot water boiler so as to cool the boiler.

My invention has for its object, therefore, to dispense with such inconvenience by means of a device which is simple in construction and safely and readily operated, and also to avoid heating water when it is not wanted, thereby economizing to that extent in the matter of fuel.

Such objects I accomplish by the means illustrated in the accompanying drawings, in which drawings like characters of reference indicate like parts throughout the views, and in which

Figure 1 is a side elevation of a kitchen range partly in section, connected with a hot water boiler; Fig. 2 is a horizontal section taken on the line 2—2 of Fig. 1; Fig. 3 is a side elevation of a detachable partition; Fig. 4 is a side elevation of a water back detached; and Fig. 5 is a vertical cross section taken on the line 5—5 of Fig. 3.

As illustrated in the drawings, 1 represents a kitchen range having a fire box 2 of ordinary construction having grate bars 3 mounted therein. A bracket 13 is formed on one end of the range or connected thereto in any suitable manner, and is provided with a groove or way 10 extending lengthwise of the fire box, and a corresponding groove 9 is formed in the top of the range by means of ribs 9^a. A shield 14 is adapted to engage at its upper and lower edges respectively the upper groove 9 formed in the top of the range, and the lower groove 10 formed in the bracket 13. This shield is of a length corresponding to the length of the fire

box, and in width extends from the level of the grate bars to the top of the range, thereby separating the water back 7 from the fire box 2 of the range. The shield 14 is composed in whole or in part of some material which is a non-conductor of heat. I prefer, however, to form the shield with two outer iron plates 11 having a plate or sheet of asbestos 12 arranged between such plates. By means of such construction the plate may be arranged with either side exposed to the fire box and be thereby reversibly secured to the range. When the shield 14 is so arranged the hot water back is protected against the heat of the fire box, and the water in the boiler is not heated when unnecessary and consequently no heat is radiated from the boiler. When, however, it is desired to heat the water in the boiler the shield 14 may be withdrawn from the lower groove 10 and the upper groove 9, and placed in a lower groove 13^a formed in the bracket 13 and an upper groove 1^a formed in the top of the range, by means of an outer rib 1^b and an inner rib 1^c. When arranged in that position the shield 14 forms the outer side of the fire box, as indicated by full lines in Fig. 1. When, however, the shield is removed from its outer position in the fire box and is arranged within the grooves 9 and 10 so as to protect the water back from the heat of the fire box, as indicated by dotted lines in Fig. 5, the outer chamber formed thereby is opened so as to expose the water back and keep it free from heat.

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

1. A range having a water back and a fire box provided with a detachable outer wall, and means arranged on opposite sides of the water back adapted to receive said wall, substantially as shown and described.

2. A range having a water back and a fire box provided with detachable outer wall, and guide ways on opposite sides of the water back adapted to receive said wall, substantially as shown and described.

3. A range having a water back and a fire box provided with a detachable outer wall, constructed of outer metallic plates and an inner plate of asbestos, and means arranged on opposite sides of the water back adapted to receive said wall, substantially as shown and described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

SAMUEL MERIT STEVENS.

Witnesses:

HARRY A. BOTTOMLEY,
JESSE R. STARNES.