

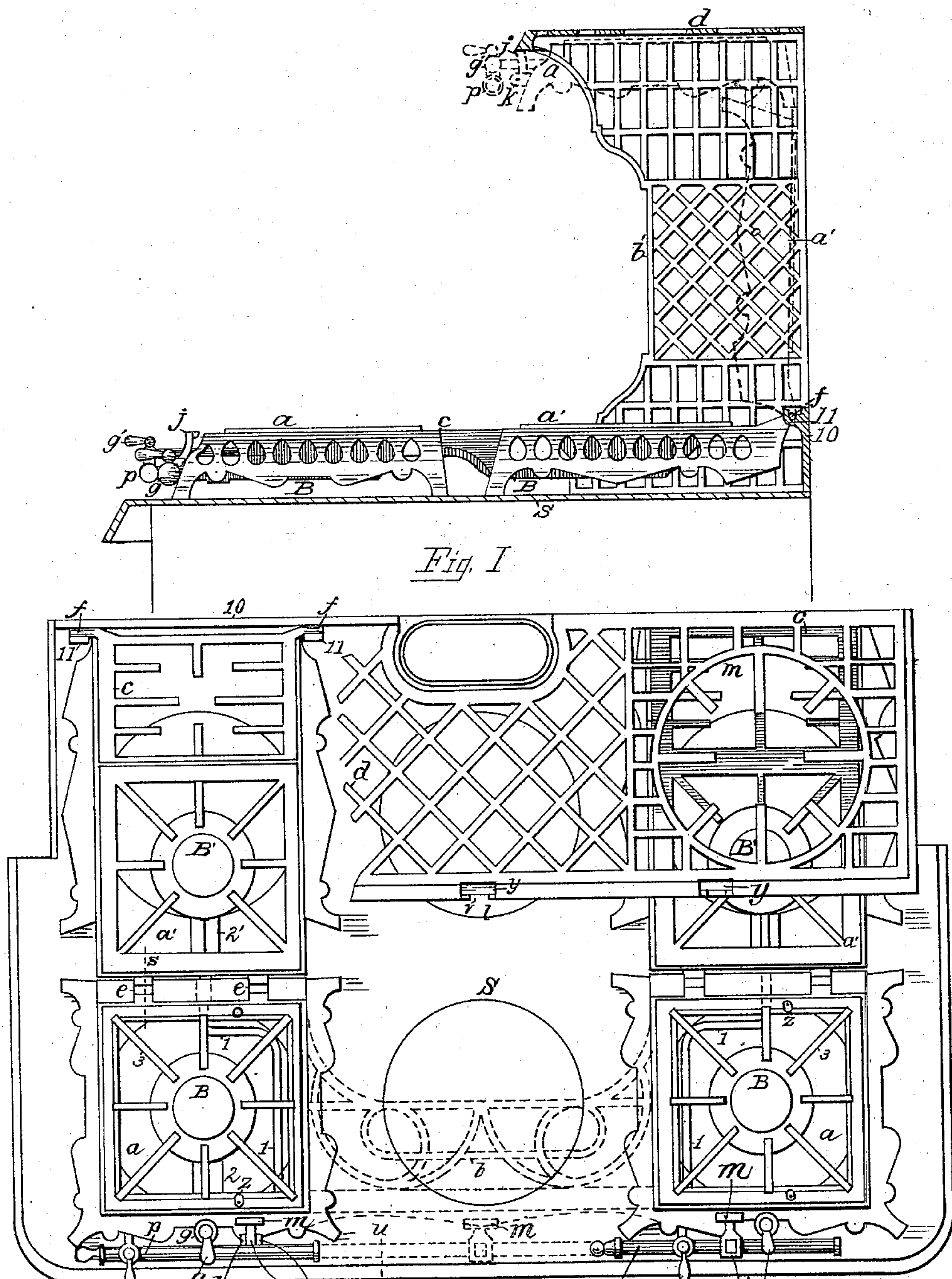
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3 Sheets—Sheet 1.

W. D. SOUTHARD.
COMBINED FUEL AND GAS STOVE.

No. 558,618

Patented Apr. 21, 1896.



9' WITNESSES: J k
Fred D. Clinton
Martin Bros

Fig. II

P 9'

9' INVENTOR
W. D. Southard
by H. Anderson

ATTORNEY.

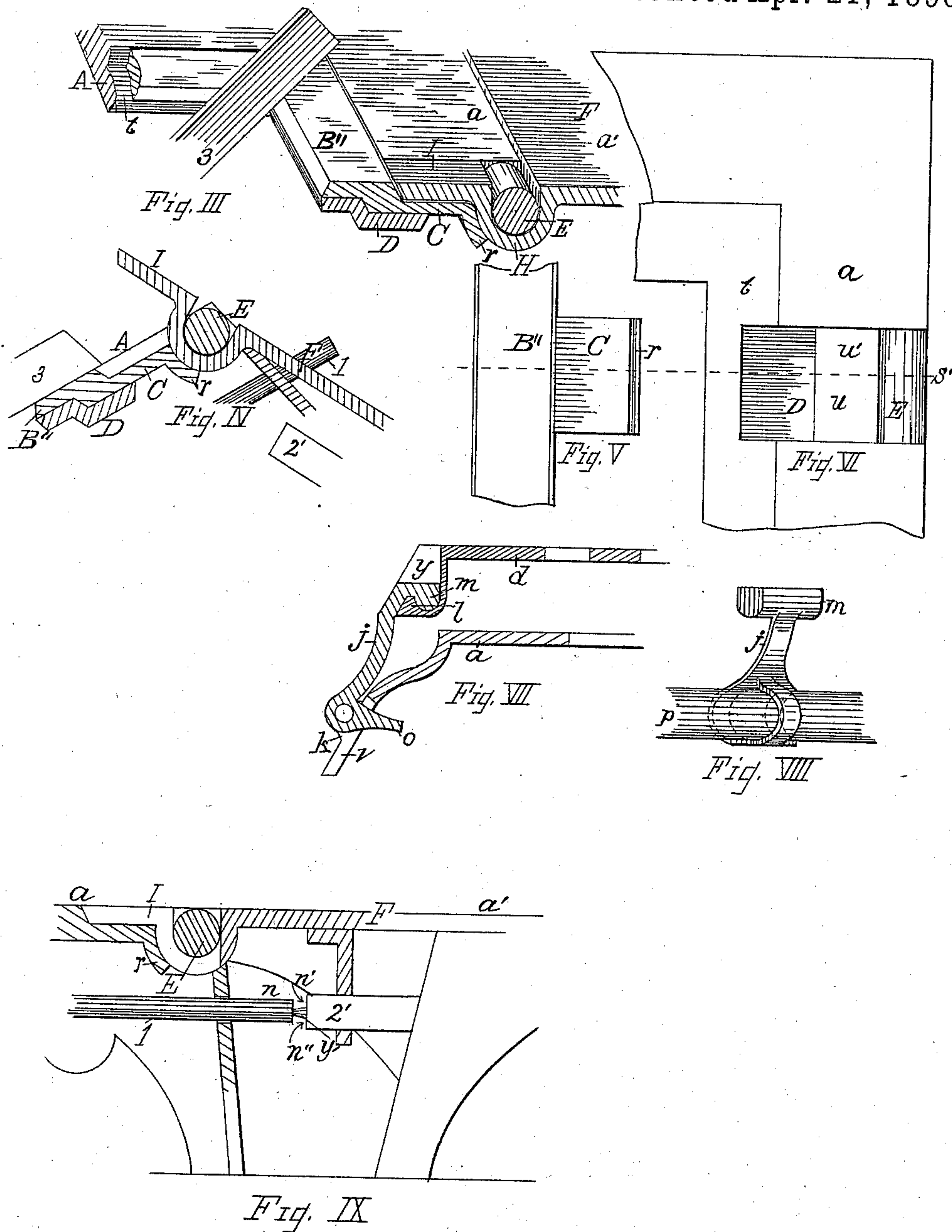
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WITNESSES:

Wm. H. Brown
Frederick Sherrard

INVENTOR

W. D. Southard

BY

Handwritten signature
ATTORNEY.

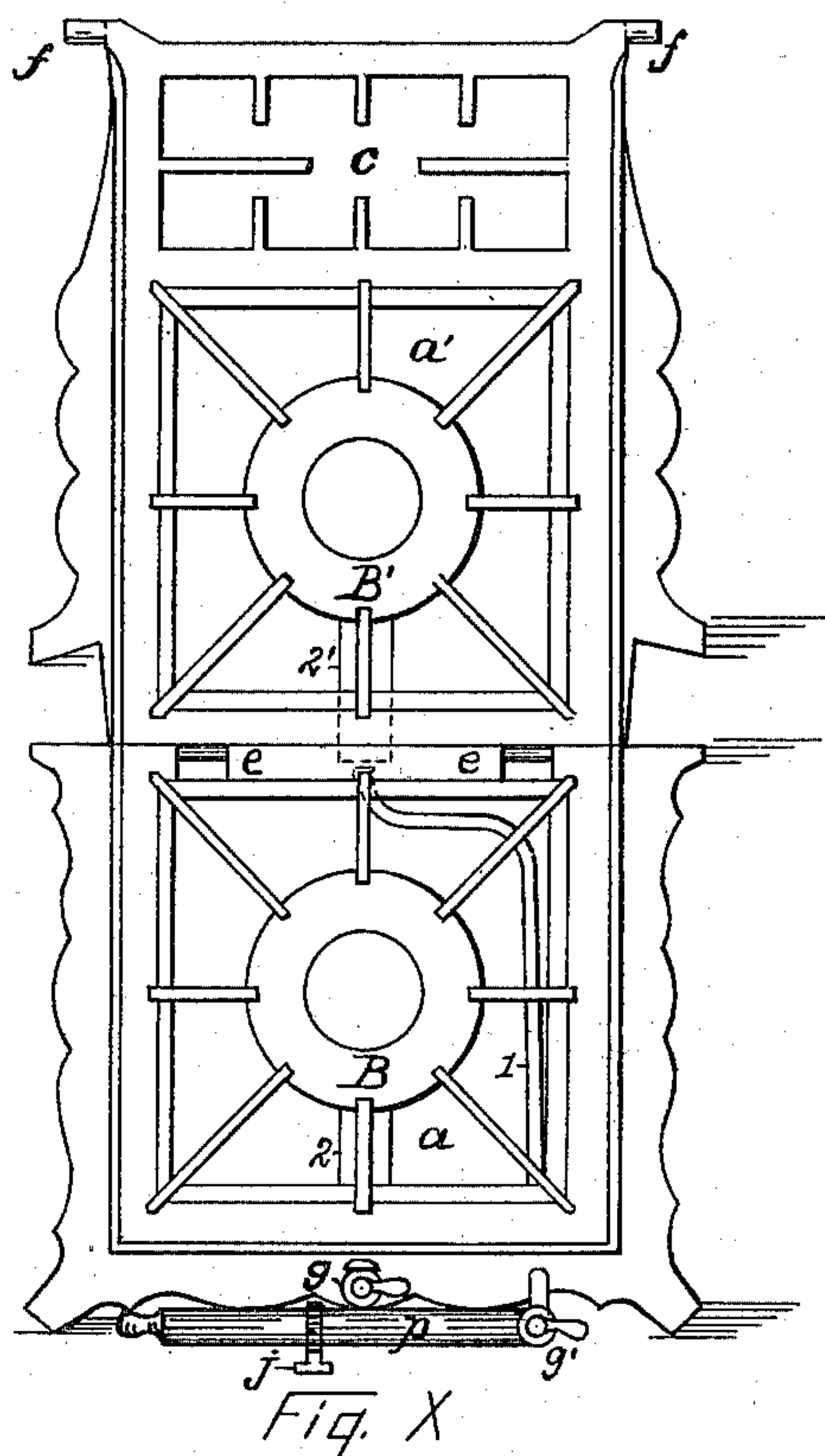
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Patented Apr. 21, 1896.



WITNESSES:

R. E. Briggs
John H. Chapman

INVENTOR

Wm. D. Southard

BY

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UNITED STATES PATENT OFFICE.

WILLIAM D. SOUTHARD, OF PEEKSKILL, NEW YORK, ASSIGNOR TO
SOUTHARD, ROBERTSON & CO., OF SAME PLACE.

COMBINED FUEL AND GAS STOVE.

SPECIFICATION forming part of Letters Patent No. 558,618, dated April 21, 1896.

Application filed February 14, 1895. Serial No. 538,321. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM D. SOUTHARD, a citizen of the United States, and a resident of Peekskill, in the county of Westchester and State of New York, have invented certain new and useful Improvements in a Combined Fuel and Gas Stove, of which the following is a specification.

My invention relates to the combination of gas-stoves with cooking stoves or ranges when said stoves or ranges are provided with shelves; and its object is to afford means by which from one to four gas-stoves may be employed in the combination.

The object is attained by the means set forth in the drawings herewith; and this specification, which, taken together, I declare to be a full and exact description of my invention, such as will enable others skilled in the art to which it appertains to make and use the same.

In the accompanying three sheets of drawings like letters and figures refer to similar parts throughout the several views.

Figure I is a side elevation of a range, showing a pair of gas-stoves attached, one on each side of the range, one spread upon the range, the other folded under the shelf. Fig. II represents a plan of the range-top, showing a combination with it and the bracket-shelf of four gas-stoves. Fig. III represents the manner of hinging together the front and back portions of the gas-stoves. Fig. IV represents the action of the hinge illustrated by Fig. III. Figs. V and VI are details descriptive of the hinge shown in Fig. III. Fig. VII represents a form of hanger for suspending the stoves from the bracket-shelf. Fig. VIII shows a form of hanger also employed for suspending the gas-stoves from the shelf. Fig. IX represents the manner of feeding the rear gas-stoves from a supply-pipe secured in the front gas-stove. Fig. X shows the gas-stove separate from the fuel-stove.

Fig. I is designed to show one of these stoves, as represented on the left-hand side of Fig. II, spread upon the range for use, with the one on the right-hand side of said Fig. II folded under the bracket-shelf, where it may be out of the way, and where it may also be used by placing the cooking utensils on the

top of the shelf over the stove. In Fig. II is shown how the two may be united to use as one combination, while Fig. I shows their use as separate stoves. In Fig. I the shelf *d* is represented as cut away to indicate the method of suspending the stove, said method being shown in detail by Fig. VI.

At each end of the shelf *d* brackets *b'* afford it support, the brackets being fastened to the range-top. At their bases said brackets are fastened to the back rails 10. Lugs 11 are attached to or may be integral with the said back rails to receive the hinge-lugs *f* of the gas-stove *a'*, as shown also in Fig. II, where the shelf *d* is shown to be cut away to show the construction.

The stove is shown separated from the range in Fig. X. *a* represents the front stove, and *a'* the back stove. The front stove is provided with the ordinary gas-supply pipe *p*, the cock *g* admitting gas to the tube 2 to supply the burner B. At *e e* the stove *a* is hinged to stove *a'*, (which I call the "back stove,") which is shown to be hinged to the back rail 10 at the points *f* 11, Figs. I and II. The supply-pipe is provided with an additional gas-cock *g'*, which admits gas through the pipe 1 to the burner-tube 2', which is a part of the burner B' in the stove *a'*. At *u*, Fig. II, the pipe *g* is shown divided, indicating the separate use of the two right and left gas-stoves.

Lifting the front stove *a*, which will be done usually by using pipe *p* for a handle, the two stoves *a a'* will raise as one stove; but the two may be made to fold together by folding them in the reverse direction, so that when the front stove is raised to a suitable height they may be made to fold together and go under the shelf *d*, as shown.

Upon the front of stove *a* (shown in Fig. I) is a hanger *j*, supported in lugs *k*, jutting from the frame of the stove. The upper end of this lug catches in a notch *y* in the front edge of the shelf *d*, as shown in Fig. VII, and which will be further described herein.

The stoves *a a'* may be of the usual form of gas-stoves. In order to bring the stoves well forward on the range-top and to give the necessary elevation to bring the front stove to a proper position under the shelf *d* without having to place the shelf too low for

convenience, the construction gives a grated extension *c* back of the stove *a'*; but the stove and said extension are made in one piece. The shelf *d* is provided in the top with the usual openings, as at *m*, Fig. II, to receive cooking utensils, so that the stove *a* may be used when in the folded position. Both stoves may be easily removed entirely from the range by simply disengaging the hinge-lugs *f* from the lugs *l*.

It will be obvious that by having the burner out of the back stove the said stove becomes simply a support for the front stove.

By placing a similar combination, as just described, on both sides of a range and uniting them by a long gas-pipe, as shown in Fig. II, it becomes a combination of four gas-stoves. When so made, a hanger *j* is placed on the pipe and it supports the combination under the shelf by engaging with the notch *y* in the shelf *d*.

It will be obvious that with this combination of four gas stoves the front stoves may be united in the usual manner of a frame, as indicated by the broken lines *b*, Fig. II. This, however, makes a heavier combination than when the pipe is used as the only connection. Thus it will be seen that two independent pairs of gas-stoves may be used, one on each side of the range, or the four stoves may be operated together by uniting the front ones by means of a continuous feed-pipe, or a connecting-frame, as *b*, or a single pair of stoves may be used, and it may be transferred from one side of the range to the other.

I will now describe some of the details of the construction of some of the parts important to effect the results shown.

Figs. III and IV illustrate how the two gas-stoves *a a'* are hinged together. The top surface *F* of the stove *a'* is provided with hinge projections *H*. The curved part *H* is adapted to receive the pintle *E*, cast in the edge of the frame of *a*, as shown in Fig. VI, said figure representing a corner of the stove *a* with plate *B''*, Figs. II and III, removed. A depression *D* is also provided in this casting with an open space *u'* between the pintle and depressed portion, as shown.

In uniting the two stoves the parts *E H* are joined, as in Fig. III, without the plate *B*. After the parts *a a'* are thus joined they are slightly tilted, as in Fig. IV, which admits of the putting in place of plate *B''*, which is provided with projections *C r*, as in Figs. III and V, and in placing it the said projections are first inserted through the space *u'*, and as plate *B''* drops into its seat the said projections fill the space *u'* and that made by the depression *D*. Plate *B''* being dropped into its place is secured therein by a pair of small buttons *z*, Fig. II. The parts are all united now, as in Figs. III and IV. The latter figure represents the action of the hinge when the stoves are folded toward each other, the part *H* of the hinge moving between pintle *E* and the segment *r*.

These two figures show the plates *a*, *B''*, and *a'* in cross-section through line *s*, Figs. V and VI.

I supply gas to the burners *B B'* in the back stoves through a pipe *l* passing through the front stove. A flexible tube connection might be used for the purpose, but would introduce an element of expense I wish to avoid, so I secure the end of the air and gas mixer *2'*, Figs. IV and IX, in the back stoves and the end *n* of the gas-supply nozzle in the front stove in such relation to each other that as the stoves are folded the said two ends will just pass each other, and when they are in position for use their centers are on the same horizontal axis, so that if *y'* represents the gas-jet passing from pipe *n* to the mixer *2'* currents of air will follow it, as indicated by the arrows *n' n''*. I obtain perfect results in this manner.

For supporting the gas-stoves in their folded positions means are shown in Figs. VIII and VII and also in Fig. II. Fig. VIII shows a hanger *j*, pivoted to lugs *k*, cast on the front of the stove having an extension *o*, that may be used as a finger-piece to aid in dislodging the hanger from its seat in the recess *y*. A recess *y* is made in the front edge of the shelf *d* to admit of a sort of hooking end on the hanger, as shown. This prevents accidental displacement of the hanger. To release it, it is necessary to first slightly lift the stove far enough to let the hook *m* pass over the wall *l* in the notch. Then by lifting the lever *o* with the finger the stove may be lowered.

When a pipe connection is used between the stoves on each side of the range, a hanger of the form shown in Fig. VIII is used. It passes easily over the pipe. It is also illustrated in Fig. II.

Since I contemplate using these stoves in different combinations, as before described, I provide three of the notches *y* in the shelf *d* for the reception of the hanger *j*, one in the middle of the shelf for the combination of four stoves and one on each end for the single stoves.

I claim the privilege of varying the construction of my stoves from the forms herein shown so long as I embody the principles of my invention.

What I claim, and desire to secure by Letters Patent of the United States, is—

1. The combination with a range provided with a bracket-shelf and back railing, of front and back gas-stoves hinged together, the back stove hinged to the back railing, said combined stoves adapted to be raised and folded beneath the shelf substantially as described, the back stove assuming a vertical position, the front stove lying beneath the shelf to which it is secured, said shelf having an opening above the gas-stove for the reception of cooking utensils, substantially as shown and described.

2. The combination with a range-top having a bracket-shelf and back railings, of a

front and back gas-stove hinged together so as to fold under the shelf, the front stove lying underneath the shelf when folded, the back stove assuming a vertical position, the said back railings on each side of the range having lugs for the reception of hinge-lugs on the said back gas-stove, said hinge and lugs being separable, whereby the gas-stove may be used on either end of the range, substantially as shown and described.

3. In combination with a range-top having a bracket-shelf and back railings, front stoves *a*, *a*, united by the gas-supply pipe *p* and hinged to the back gas-stoves *a'*, *a'*, supply-pipe 1 for the burners in the back stoves, the back stoves having grated extensions *c*, *c*, and being hinged to the back railing 10 by means of lugs *f*, 11, said stoves being actuated as one stove in folding beneath the shelf, in the manner and for the purpose herein set forth.

4. In a folding gas-stove substantially as shown and described the front stove united to the back stove by means consisting of the extension *H*, *I*, on the stove *a'* interlocking

with the pintle *E*, extensions *C*, and segment *r* on the stove *a*, substantially as shown and described.

5. In a gas-stove substantially as herein described, consisting of a front and a back stove adapted to be folded so that the front stove will lie beneath the shelf, the back stove assuming a vertical position, the back stove receiving its gas supply from a pipe 1 through the front stove, the said pipe and the gas and air mixer of the burners of the back stove arranged in such juxtaposition that when moved from a horizontal position their ends will pass each other, and when in position for use the gas-pipe is adapted to project the gas into the air-mixer, substantially as herein shown and described.

Signed at Peekskill, in the county of Westchester and State of New York, this 4th day of February, A. D. 1895.

WM. D. SOUTHARD.

Witnesses:

ALICE BLANCHARD,
MARTIN MOSES.