

(No Model.)

J. JEWETT.
HEATING STOVE.

No. 348,218.

Patented Aug. 31, 1886.

FIG. 2.

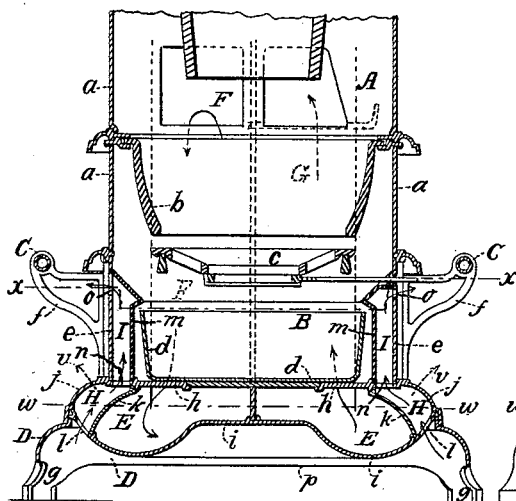


FIG. 1.

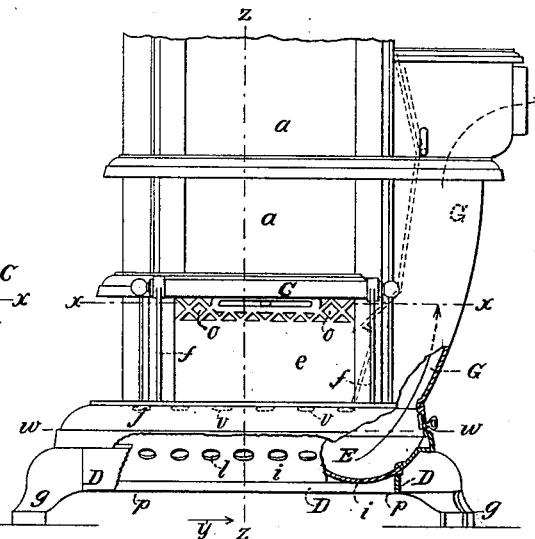


FIG. 3.

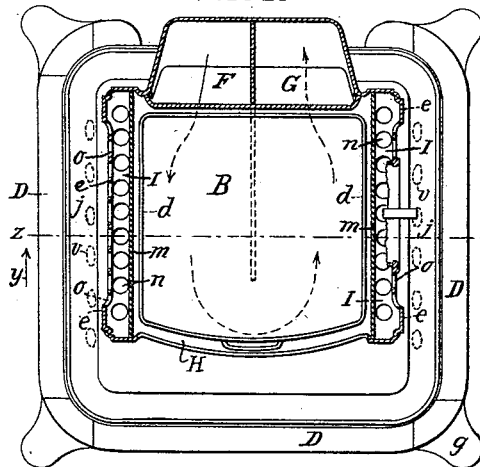
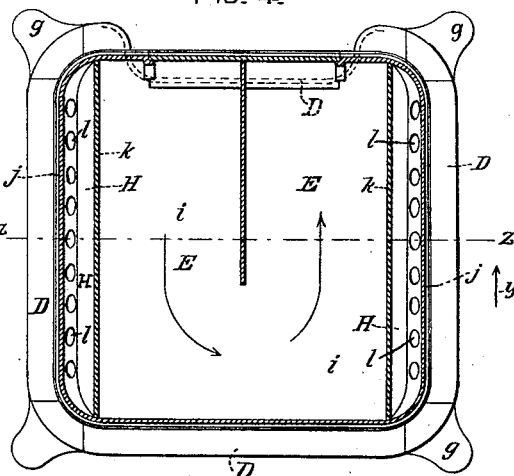


FIG. 4.



WITNESSES:

W. H. Collogg
J. A. Shaughnessy

INVENTOR:

Josiah Jewett,
by Austin F. Park,
attorney.

UNITED STATES PATENT OFFICE.

JOSIAH JEWETT, OF BUFFALO, NEW YORK.

HEATING-STOVE.

SPECIFICATION forming part of Letters Patent No. 348,218, dated August 31, 1886.

Application filed March 5, 1886. Serial No. 194,088. (No model.)

To all whom it may concern:

Be it known that I, JOSIAH JEWETT, a citizen of the United States, residing in the city of Buffalo, in the county of Erie and State of New York, have invented a new and useful Improvement in Heating-Stoves, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to improvements in heating-stoves which have a fire-chamber section, an ash-chamber section, and a base-section having therein a prostrate fire-flue or fire-flues communicating with the fire-chamber by a descending flue or flues, and with an exit-passage for the gases of combustion.

The general objects of my improvements are to increase the disengagement of heat from the lower portion of the stove, to decrease the heat of the outer side casing of the base-section and thereby lessen its liability to burn or scorch articles of clothing or personal wear brought against or into contact with such outer side casing, and to induce a current or currents of air to rise from under the stove upward through and be heated in a flue or flues in the lateral side part or parts of the base-section, and thence pass outward from the lower portion of the stove into the open air, and in proper position to permit persons seated by the stove to conveniently warm their feet by such current or currents of heated air, which will rapidly ascend and thereby promote the circulation of the air in or throughout the apartment in which the stove shall be used.

In the accompanying drawings, Figure 1 represents a side elevation, partly in section, of a portion of a stove which embodies one form of my invention. Fig. 2 shows a vertical section of the same in the plane of the line $z z$ in Figs. 1, 3, and 4, and an elevation of some parts in rear thereof, viewed in the direction pointed by the arrow y . Fig. 3 represents a horizontal section of the same stove at or about the line $x x$ in Figs. 1 and 2, with a plan of some parts below. Fig. 4 shows a horizontal section at and a top view of some parts below the plane of the lines $w w$ in Figs. 1 and 2.

Like parts are marked by like letters in the different figures, and the arrows therein indicate the direction in which the gases of com-

bustion and the currents of heated air pass through the stove.

Prior to this invention some heating-stoves have had a fire-chamber section with an outer casing, a , fire-pot b , grate c , and flame-chamber A, an ash-chamber, B, under the fire-chamber, and adapted to receive and contain an ash-pan, d , and having an outer casing, e , and sometimes foot-rails C, supported outside by brackets f , and a base-section furnished with legs g , and occasionally with a downwardly-extending border-skirting, D, and having between the bottom h of the ash-chamber and the bottom i of the base-section a prostrate fire-flue or fire-flues, E, extending throughout or along the side or sides of the base-section, and having communication with the flame-chamber by a descending flue, F, and with the exit-passage for the gases of combustion by an ascending flue, G, in the rear part of the stove. Such stoves commonly have the outer lateral casings of the fire-flue or fire-flues in the base-section consist of the outer side casings, j , which, by contact therewith of the current or currents of highly-heated gases of combustion in said base flue or flues, usually become so hot as to burn or scorch articles of wearing-apparel inadvertently brought in contact with said outer casings, and to burn or injure the feet, shoes, or stockings of persons attempting to warm the same by resting them upon or against the outer side casings of the base-section. To avoid that defect, and also increase the disengagement and discharge of heat from the base-section in a current or currents of air, I make and arrange in the base-section, between its outer casing j and the fire-flue or fire-flues E, the partition plate or plates k , and an air-flue or air-flues, H, having at the bottom an inlet passage or passages, l , to admit outside air from under the base-section, and at the top an outlet passage or passages to discharge into the open air from the lower portion of the side or sides of the stove the air that will be heated in passing upward through said air-flue or air-flues. Such discharge passage or passages for the heated air may be directly through and along the upper part of the outer side casing j of the base-section, as indicated by dotted lines at v in Figs. 1, 2, and 3.

To increase the heat of the current or cur-

rents of air that will rise through the base flue or flues H, and economize the heat radiated from the lower portion of the fire-pot and utilize the commonly vacant space between the sides of the ash-pan *d* and the outside casing, *e*, of the ash-chamber section, I make and arrange in that section the partition plate or plates *m*, and between the latter and the outer side casing *e*, an air-flue or air-flues, I, having at the bottom an inlet passage or passages, *n*, Figs. 2 and 3, from the flue or flues H, and also having through any suitable part or parts of the outer casing *e*, but preferably through and along its upper portion, an outlet passage or passages, *o*, for the heated air that shall ascend through the flues H and I.

To cause the outer air which shall be heated under and by contact with and radiation from the highly-heated bottom *i* of the base-section to rise through the flue or flues H or H and I, and be further heated therein and discharged therefrom, as above specified, I have the border-skirting D extend below the bottom *i*, all around the latter, and have the inlet passage or passage *l* to the flue or flues H within the circuit limits of said border-skirting and above its lower edge, *p*, essentially as illustrated by Figs. 1, 2, and 4.

To cause the current or currents of heated air that shall rise through the flue or flues H or H and I to issue from the stove in proper position to warm person's feet placed or resting on the foot-rail or foot-rails C, I arrange the outlet or outlets for such current or currents under or below said foot-rail or foot-rails—as at *v* or *o*, for example—so that the current or currents of heated air issuing thereat from the flue or flues H or H and I will pass under and rise past the foot-rail or foot-rails in ascending along the outside of the stove to its top, and thereby promoting the circulation of the air throughout the room in which the stove is used.

I claim as my invention—

1. In a heating-stove, the combination, with its base-section having therein a fire-flue, E, of the air-heating side flue, H, cased on its outer side by the outer side casing *j* of the base-section and on its inner side by the outer side casing *k* of the fire-flue, and having at its bottom an inlet, *l*, for the outer air, and at its top an outlet for the heated air into the open air at the lower part of the stove, substantially as shown and specified.

2. In a heating-stove, the combination, with its ash-chamber section and base-section having therein a lateral fire-flue, E, of the air-flue H between and cased laterally by the outer

side casing *j* of the base-section and the outer side casing *k* of said fire-flue, and having the bottom inlet-passage, *l*, and the air flue or passage I between and cased laterally by the outer and inner side casings, *e* and *m*, of the ash-chamber section, and having the bottom inlet-passage, *n*, from the flue H, and the outlet-passage *o* through the casing *e*, substantially as set forth.

3. In a heating-stove, the combination, with its base-section having therein a fire-flue and provided with the border-skirting D, extending around and below the bottom *i* of the base-section, of the air-heating side flue, H, between and cased laterally by the outer side casing *j* of the base-section and the outer side casing *k* of said fire-flue, and having a bottom inlet-passage, *l*, within the circuit or limits of said border-skirting and above its lower edge, and a top outlet-passage for the heated air from the lower portion of the stove, substantially as shown and specified.

4. In a heating-stove, the combination, with its ash-chamber section furnished with the foot-rail C, and the base-section having therein a fire-flue, E, of the air-heating side flue, H, between and cased laterally by the outer side casing *j* of the base-section, and having a bottom inlet-passage, *l*, for the outer air, and a top outlet-passage for the heated air under said foot-rail, as set forth.

5. In a heating-stove, the combination, with its ash-chamber section furnished with the side foot-rail, C, and the base-section having therein a fire-flue, E, and provided with the downwardly-extending skirting D, of the air-heating side flue, H, between and cased laterally by the outer side casing *j* of the base-section and the outer side casing *k* of said fire-flue, and having a bottom inlet-passage, *l*, within the limits of the border-skirting and above its lower edge, and the air passage or flue I between and cased laterally by the outer and inner side casings, *e* and *m*, of the ash-chamber section, and having the inlet-passage *n* from the flue H, and the lateral outlet-passage *o* below said foot-rail, substantially as set forth.

In testimony whereof I hereunto set my hand, in the presence of two subscribing witnesses, this 1st day of March, 1886.

JOSIAH JEWETT.

Witnesses:

WM. C. CONNELL,
ELLIOTT C. W. HOGAL.