JOHN M. THATCHER.

Base-Burning Stove.

No. 128,188. Patented June 18, 1872.

FIG. 1.

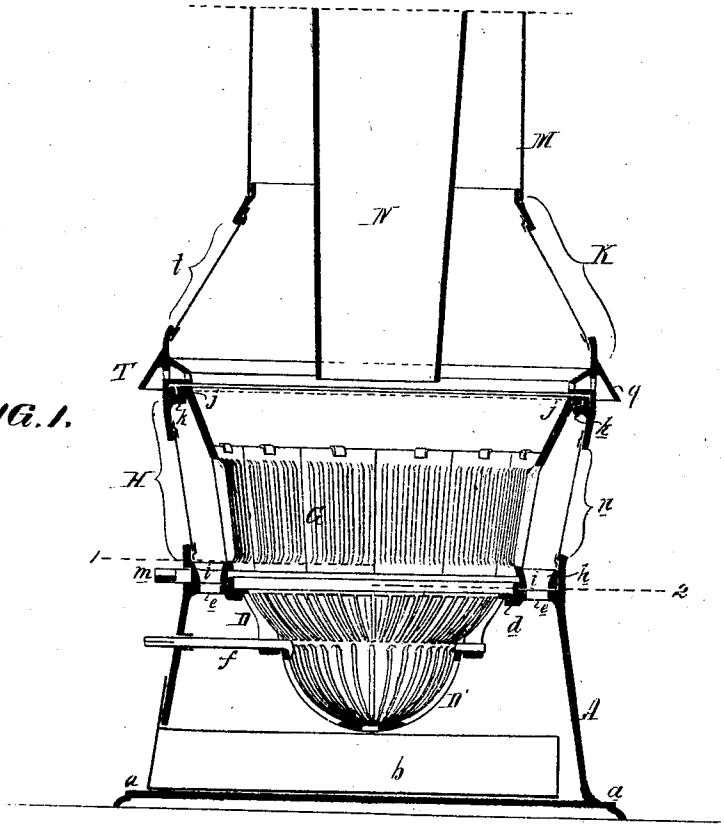
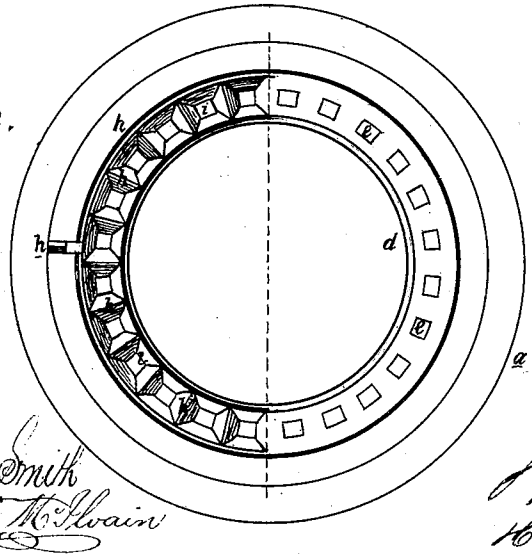


FIG. 2.



WITNESSES

Henry Smith

Thomas H. Clagett

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By his attys.
Howson and Sons

UNITED STATES PATENT OFFICE.

JOHN M. THATCHER, OF JERSEY CITY, NEW JERSEY.

IMPROVEMENT IN BASE-BURNING STOVES.

Specification forming part of Letters Patent No. 128,188, dated June 18, 1872.

Specification describing an Improvement in Heating-Stoves, invented by JOHN M. THATCHER, of Jersey City, Hudson county, New Jersey.

Improvements in Heating-Stoves.

My invention relates to improvements in heating-stoves which have grated fire-pots; and my improvements consist, first, of a stove having a grated fire-pot which admits of being agitated for the purpose of clearing the grate; and second, of the combination of the said fire-pot with a register, by means of which air can be admitted to or excluded from the grated sides of the fire-pot, and by which the ashes accumulating outside of the fire-pot can be disposed of.

Figure 1 is a vertical section of my improved heating-stove, and Fig. 2 a sectional plan on the line 1 2, Fig. 1.

A is the base of the stove, resting on the bottom plate *a*, and containing the usual ash-drawer *b*, the base having near its upper edge an internal flange, *d*, in which are a number of holes, *e*, arranged in the manner best observed in Fig. 2. On a ledge formed on this internal flange rests the upper ring of the grate D, to which is hung a grate, D′, which can be agitated or turned entirely round by means of a handle attached to a continuation, *f*, of one of its journals, and which is otherwise constructed in a manner described in the Letters Patent No. 109,968, granted to me on the 6th day of December, 1870. On the perforated flange *d* also rests a ring, *h*, having openings *i* similar to those in the flange, and arranged in a similar manner, the ring or register admitting of being so turned that its opening *i* will coincide with the openings *e* in the flange below, or so turned as to entirely close the latter openings. This ring or register *h* forms the lower portion of the grated fire-pot G, the upper portion of which consists of a ring, *j*, so adapted to a fixed ring, *k*, that the former can be horizontally vibrated on the latter; in fact, the entire grated fire-pot G, of which the upper ring *j* and lower ring *h* form parts, admits of being horizontally vibrated to a limited extent by a suitable handle attached to the projection *m*.

The ring *k*, previously alluded to, forms part of the outer fixed casing X of the stove, and is united to or forms a continuation of the base A; and in the said casing X are a number of mica panels, *n*, situated directly opposite to the grated fire-pot G. Above the casing X, and connected with the same, is another casing, K, which also has a number of mica panels, *t;* and the casing K is surmounted with a cylinder, M, containing the fuel-reservoir or magazine N.

Immediately above the ring *k*, and at the lower end of the casing K, there is a ring, T, containing an annular air-chamber, the entrance to which is overlapped by the inclined portion *q* of the ring, the latter forming a guard to direct the air to the chamber, and the said air escaping through perforations in the ring in to the combustion-chamber above the grated fire-pot G, and the jets of air serving to ignite the gases at a point below the upper set of mica panels, through which a clear and cheerful flame can, consequently, be observed.

In stoves with grated fire-pots, as heretofore made, air permitted to enter the base through the ash-drawer opening ascended directly to the upper part of the fire-pot, and there entered the combustion-chamber, thereby preventing the coal below that point from being thoroughly consumed. While it is advisable under some circumstances, and in some conditions of the fuel, to permit the air to gain access to the sides of the grated fire-pot, it is generally best to exclude the air from the same and to permit it to enter the grates below.

Four important ends are attained by the movable grated fire-pot: First, air can be admitted to its side bars, should circumstances require it, through the register *i;* second, the air can be excluded from the fire-pot by so adjusting the same as to close the openings *e;* third, the grate of the fire-pot can be cleared by agitating the same; and fourth, the ashes

which accumulate between the grated fire-pot and the casing can be readily disposed of by simply exposing the openings *c*.

I claim as my invention—

1. A stove having a grated fire-pot arranged above and independent of the grate, and which admits of being moved, substantially in the manner described.

2. The combination, with the said fire-pot, of the register, arranged at or below the lower edge of the fire-pot for the admission of air to or for its exclusion from a chamber surrounding the grated sides of the pot.

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

JOHN M. THATCHER.

Witnesses:

R. S. HAYWARD,

HENRY O. BAILEY.