

(No Model.)

4 Sheets—Sheet 1.

C. G. MOULTON.
Coal Stove.

No. 233,687.

Patented Oct. 26, 1880.

Fig. 1.

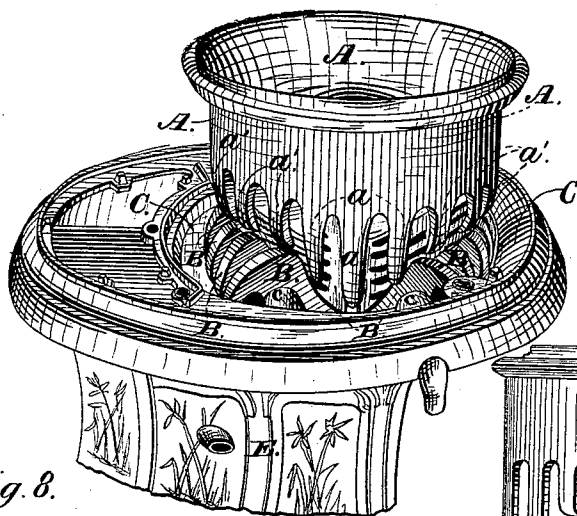


Fig. 7.

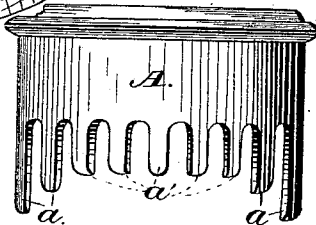


Fig. 8.

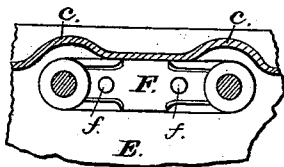
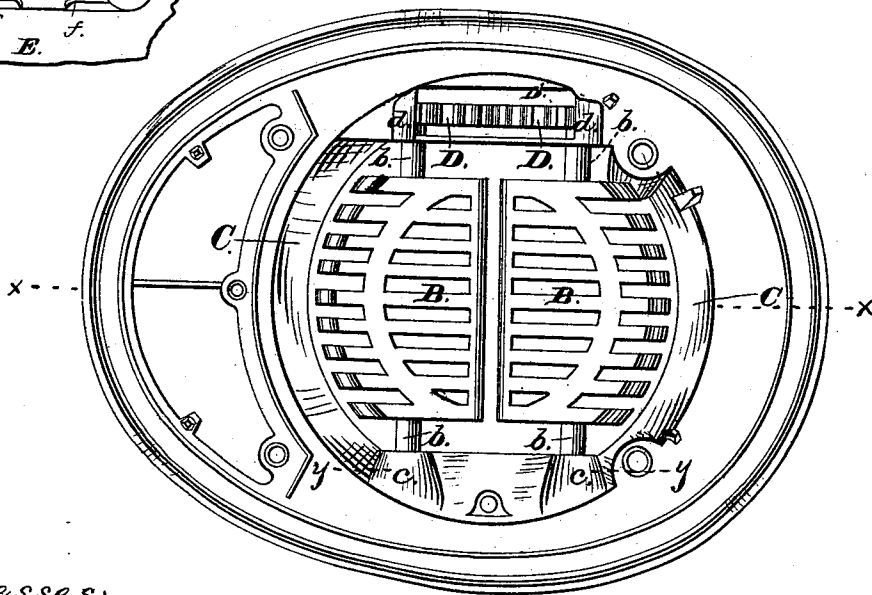


Fig. 2.



Witnesses:

Jas. E. Hutchinson.
Henry C. Hazard.

Inventor.

Charles G. Moulton.
Per J. M. Hallock
att'y.

(No Model.)

4 Sheets—Sheet 2.

C. G. MOULTON.
Coal Stove.

No. 233,687.

Patented Oct. 26, 1880.

Fig. 3.

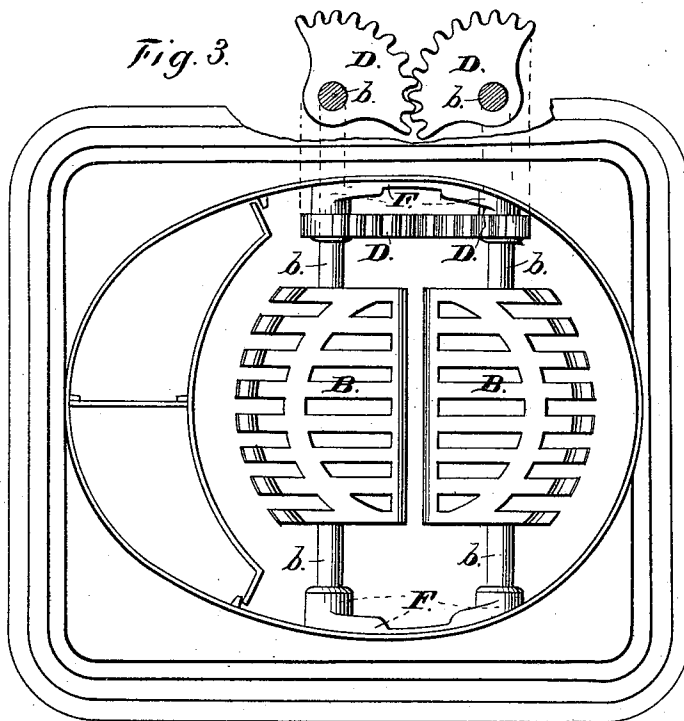
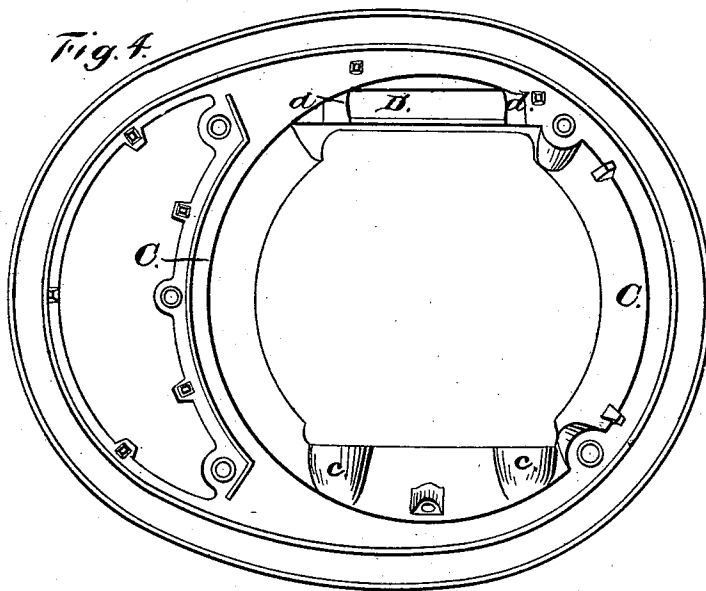


Fig. 4.



Witnesses:

Geo. E. Hutchinson.
Henry C. Hazard.

Inventor.

Charles G. Moulton
Per Jas. H. Mallock
Atty.

(No Model.)

4 Sheets—Sheet 3.

C. G. MOULTON.
Coal Stove.

No. 233,687.

Patented Oct. 26, 1880.

Fig. 5.

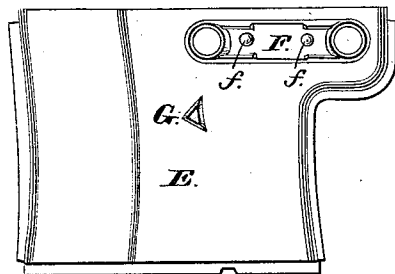
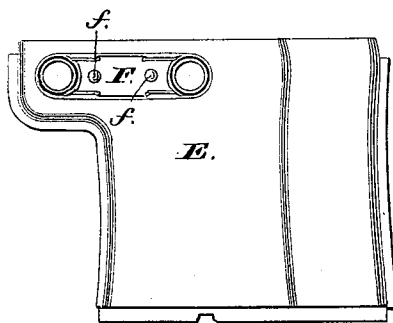


Fig. 6.



Witnesses:

*Jas. E. Hutchinson.
 Henry C. Hazard.*

Inventor.

*Charles G. Moulton
 Per J. M. Wallock
 atty*

(No Model.)

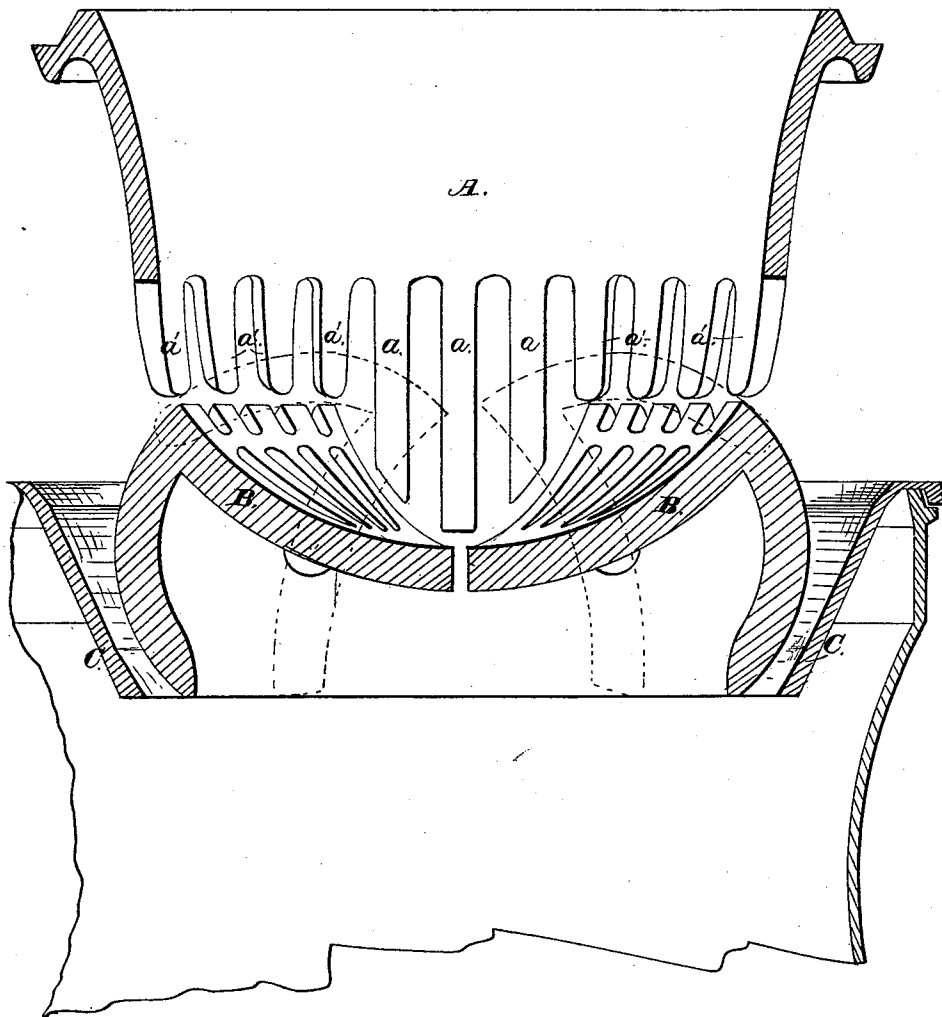
4 Sheets--Sheet 4.

C. G. MOULTON.
Coal Stove.

No. 233,687.

Patented Oct. 26, 1880.

Fig. 9.



Witnesses:

*Jas. E. Hutchinson.
 Henry C. Hazard.*

Inventor.

*Charles G. Moulton
 Per Geo K. Hallock*

UNITED STATES PATENT OFFICE.

CHARLES G. MOULTON, OF ERIE, PENNSYLVANIA, ASSIGNOR TO BLACK & GERMER, OF SAME PLACE.

COAL-STOVE.

SPECIFICATION forming part of Letters Patent No. 233,687, dated October 26, 1880.

Application filed April 5, 1880. (No model.)

To all whom it may concern:

Be it known that I, CHARLES G. MOULTON, a citizen of the United States, residing at Erie, in the county of Erie and State of Pennsylvania, have invented certain new and useful Improvements in Coal-Stoves; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to the construction of base-burning coal-stoves; and it consists in providing an improved construction which shall more perfectly adapt the same to the use of what are known as "duplex grates."

My improvements consists, first, in the form of the fire-pot; second, in the manner of hanging the duplex grates; third, in the means provided for limiting the rotation of the said grates; fourth, in an improved form of apron to be used in conjunction with the said style of grates.

My invention in no way relates to the form of grate used, but to the more perfect construction of the parts surrounding said grate, and thereby more perfectly adapting the stove to the use of such grates.

In the drawings, Figure 1 is a perspective view of the fire-pot, grate, apron, and base-cylinder or lower cylinder. Fig. 2 is a plan or top view of the parts shown in Fig. 1 with the fire-pot A removed. Fig. 3 is a similar view to Fig. 2, except that the apron C is removed. Fig. 4 is a similar view of the apron alone. Figs. 5 and 6 are side views from inside the cylinder or base of the stove of the cylinder-plates upon which the grate has its bearings, and show distinctly the bracket-irons which serve to sustain the grate. Fig. 7 is a side elevation of the fire-pot. Fig. 8 is a sectional view, on the line *yy* in Fig. 2, through the parts *c c*. Fig. 9 is a transverse vertical section, through the center of the fire-pot and grates, on a line transverse the shafts of the grates—viz., on line *xx* in Fig. 2—all of the stove-body not being shown.

In these figures, A is the fire-pot; B, the duplex grate; *b b*, the shafts of said grate. C is

the apron, (so called, as it serves as a chute upon which the falling coals and ashes are thrown toward the center of the ash-pit, and protects the bearings of the grate-shafts,) which fits around the grate. D D are the segmental gearings, which are common to grates of the kind shown. E E are the lower cylinder-plates upon which the grates have their bearings. F F are the bracket-irons in which said grates have their bearings. G is a lug on the cylinder-plate, which serves as a stop against which one of the gearings D abuts.

When the duplex grate is open, as shown in the drawings, which is the position it occupies except when it is being revolved to shake out the cinders and ashes, there is a V-shaped open space between the two lobes of the grate at each end of the same. To fill this space I construct the fire-pot A with gratings *a'* and *a*, of uneven length, those on one side, *a a*, being much longer than the others, *a' a'*, &c., as clearly shown in Fig. 1. The lobes of the grate B revolve under the short fingers *a'* and past the inner faces of the long fingers *a* on the side. If the fire-pot is not grated, it should have the same contour on the bottom, so as to conform to the form of the grate B and permit it to revolve between its longest sides.

Previous to my invention the shafts of the grate B were journaled in vertical plates which rested on the bottom of the stove. My invention in this particular consists in providing bracket-irons F F, which are provided with journal-sockets for the grate-shafts, and are riveted or otherwise secured to the lower cylinder-plates, E E. (See Figs. 3, 5, and 6.) This mode of hanging the grates is much more simple, is cheaper, and better than the former method.

C is an apron-plate which sets onto the lower cylinder. It is provided on one side with a slot, D', through which the gearings D of the grate-shafts protrude. (See Fig. 2.) The ends of this slot *d d* serve as stops for the said segmental gearings and prevent them from revolving in an upward direction only far enough to bring the grates to proper horizontal position. A stop, G, on the lower cylinder-plate limits the downward revolution of the segments.

On the opposite side of the stove from the

gearings D the apron C is provided with arches *c c*, for permitting the passage of the shafts *b b* of the grates below the apron. This formation of the apron, together with the slot D' and the form given the apron at that point, adapts the apron to the duplex grates.

I am aware that aprons are common with other forms of grates. My invention consists only in giving the apron such a form as to adapt the same to use with a duplex grate.

What I claim as new is—

1. In combination with the duplex grate B B, the fire-pot A, having its lower edge shaped to conform to the form of said grate, substantially as and for the purposes mentioned.

2. In a coal-stove, the combination, with the side plates which form the lower cylinder or ash-pit below the grate, of bracket-irons F F, attached to said plates and having journal-sockets therein, adapted, substantially as shown, to sustain and afford journal-bearings for the shafts of a duplex grate, as set forth.

3. In a coal-stove, the combination, with the duplex grate, of the apron-plate C, with arches

c c, for the passage of the shafts of said grate, and slot D', to receive the gearing D on said shafts, substantially as set forth.

4. In a coal-stove, the combination, with the duplex grate and segmental gearing D, of the apron C, with slot D' and stops *d d*, substantially as shown.

5. In a coal-stove, the combination, substantially as described, of the following elements: a duplex grate the shafts of which are journaled in socket-plates on the side of the lower cylinder-plate, an apron-plate made to conform to the form of the grate and slotted to admit the gearing on the grate-shafts, and a fire-pot with its grate-bars or fingers of uneven length to conform to the form of the said duplex grate.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES G. MOULTON.

Witnesses:

JNO. K. HALLOCK,
W. T. BLACK.