

(No Model.)

J. CLAPP & W. J. KEEP.

STOVE FIRE POT.

No. 347,995.

Patented Aug. 24, 1886.

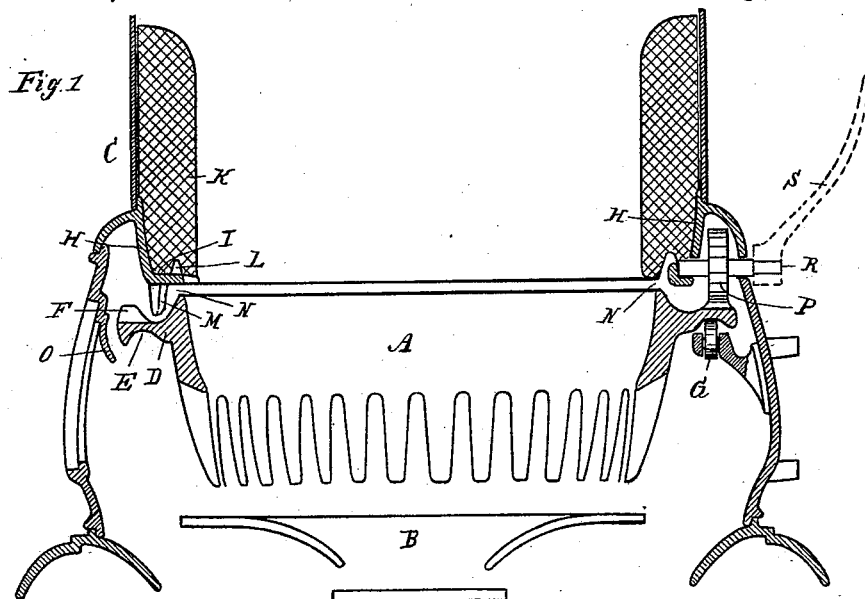


Fig. 2

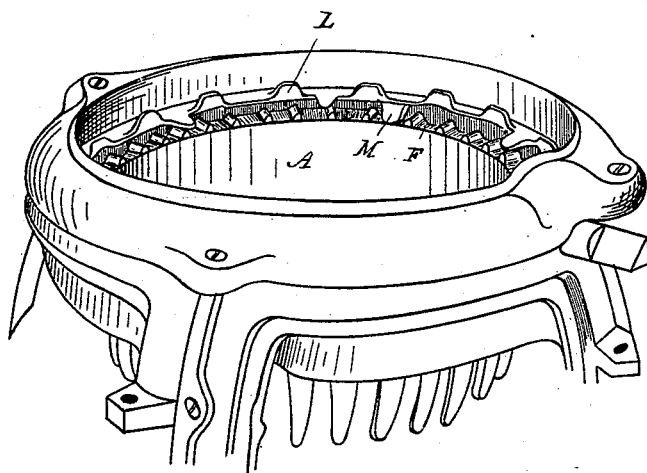
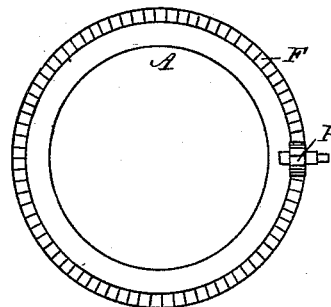


Fig. 3



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UNITED STATES PATENT OFFICE.

JOHN CLAPP AND WILLIAM J. KEEP, OF DETROIT, MICHIGAN, ASSIGNORS
TO THE MICHIGAN STOVE COMPANY, OF SAME PLACE.

STOVE FIRE-POT.

SPECIFICATION forming part of Letters Patent No. 347,995, dated August 24, 1886.

Application filed October 15, 1885. Serial No. 173,945. (No model.)

To all whom it may concern:

Be it known that we, JOHN CLAPP and WILLIAM J. KEEP, of Detroit, in the county of Wayne and State of Michigan, have invented
5 new and useful Improvement in Stoves; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form a part of this specification.

10 This invention relates to a new and useful improvement in coal-stoves.

The object of our improvement is to provide a more simple and ready means for cleaning the teeth of the fire-pot from ashes, and
15 which will obviate the use of other means for that purpose; and the invention consists in the peculiar combinations and the novel construction, arrangement, and adaptation of parts, all as more fully hereinafter described and
20 claimed.

Figure 1 is a vertical central section through a stove constructed in accordance with our improvement. Fig. 2 is a perspective view of the lower fire-pot section of the stove. Fig. 3
25 is a plan of the fire-pot.

A represents a fire-pot, or that section of fire-pot which is immediately above the grate. B is the grate, and C is the inclosing-shell, all the parts being of the ordinary form or
30 construction, except as hereinafter specified. The fire-pot A has around its top or near it an overhanging annular rim or flange, D, the under side of which is provided with a groove or channel, E, while the upper side is provided with a series of cogs, forming a gear-wheel, F. The fire-pot A is movably supported upon rollers G, which are in turn supported upon suitable brackets secured to the walls of the stove. The rollers G travel in the
40 channel E, which latter is preferably concave in cross-section, and wide enough to allow the fire-pot a lateral play, there being a small annular space left between the rim of said fire-pot and the walls of the stove to admit of
45 such play.

H is an annular flange depending from the shell of the stove. It is provided near its lower end with a ledge, I, which serves as a support for a lining, K, which may form the
50 upper part of the fire-pot. This ledge has upwardly-projecting lugs L, which enter corre-

sponding recesses in the lower edges of the lining, and thus prevent the same from accidental displacement.

M are lugs projecting downwardly from the depending flange H, and within close proximity of the rim of the fire-pot section A, thus serving as guides to prevent accidental displacement of the same.

The throat N, which forms the interval between the rotary fire-pot A and the stationary fire-pot section or lining K, is narrow on the inside and widens toward the outside, so as to form an easy escape for any material which may find a lodgment therein. To prevent the
65 ashes escaping through this throat from falling against the windows, the latter are protected by deflecting flanges O.

P is a pinion arranged to mesh with the gear F. It is secured to a shaft, R, for which
70 the depending flange H and the adjoining wall of the stove form suitable supports, while the pinion itself is protected thereby and can revolve freely in the intervening space. The outer end of the shaft R projects through the
75 shell of the stove, and is provided with a detachable handle, S, by means of which motion can be communicated to the pinion.

In practice it will be seen that by turning the handle S to the right or left the fire-pot
80 A will be rotated upon its axis. As the coal in the stove is mainly supported upon the grate, it is obvious that if motion is thus given to the movable part of the fire-pot the result will be that only the outer portion of
85 the fuel in the same will be disturbed, and if this is wholly or partly composed of ashes the latter will be dislodged and drop out, allowing the fuel at the same time to spread and fill the vacant spaces. Thus the incandescent
90 coal in the lower part of the fire-pot is made visible through the teeth of the fire-pot and through the open space between the fire-pot and the top of the grate.

It is a well-known fact that the coal which
95 lies close to the teeth of the pot is consumed faster than the coal in the center, and as our device in removing the ashes naturally induces a corresponding feed of fresh coal, it becomes at the same time an auxiliary mechanical
100 feeding device, which is better calculated than any other means now practiced to maintain

a clean and bright fire in the whole fire-pot with the utmost economy of coal, and we wish it to be understood that we claim our improvement for such purpose alone.

- 5 The object of allowing the fire-pot a limited lateral play is to render it less liable to be wedged tight by obstructions, while by making the channel E concave the fire-pot has the natural tendency to keep in its prescribed position when free to do so.

10 Although we have shown our improvement in connection with such section of fire-pot, which is immediately above the grate and provided with teeth, we do not want to be understood as limiting ourselves thereto.

15 The specific application and arrangement shown and described is preferable, in so far as it combines all the advantages set forth, and has the attendant advantage that the parts which give motion to the fire-pot are well protected and are not liable to become inoperative, while at the same time the arrangement is simple and requires but little power to operate it.

What we claim as our invention is—

- 20 1. The rotary fire-pot A, having the laterally-projecting flange D, provided on top with the gear F and on the under side with the concave channel E, in combination with the supporting-frame of the stove provided with the rolling supports G, and the actuating-pin
30 B, substantially as described.

2. The combination, with the supporting-frame of the stove, of a fire-pot composed of a stationary upper section and a rotatable lower section, the stationary section being supported on a depending flange from the wall of the stove and the lower section upon rolling supports, and provided with annular groove, and the guides M on said upper section, substantially as described.

3. The combination, with the rotary fire-pot A, having the flange or rim D, and the shell provided with windows, of the deflectors O on the inside of said shell over the windows, substantially as described.

4. A rotatable fire-pot having downwardly-projecting teeth at its lower end, means for supporting said fire-pot, a laterally-projecting flange on said pot provided with cogs, the wall of the stove, a depending flange from the said wall for supporting a lining, and a pinion engaging with the cogs and having its shaft supported by the depending flange and the wall of the stove, substantially as described.

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Witnesses:

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