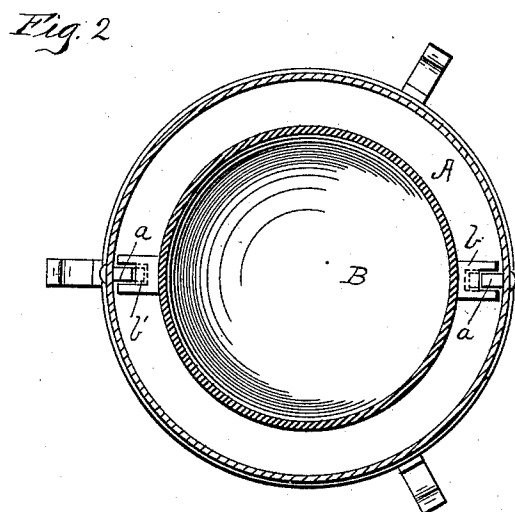
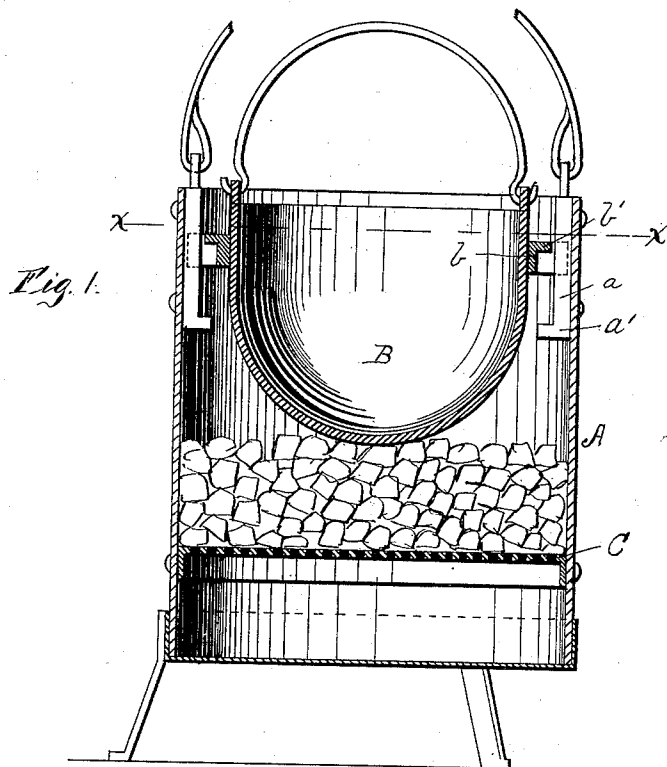


(No Model.)

J. HAGGERTY.
FURNACE.

No. 465,646.

Patented Dec. 22, 1891.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN HAGGERTY, OF NEW YORK, N. Y.

FURNACE.

SPECIFICATION forming part of Letters Patent No. 465,646, dated December 22, 1891.

Application filed November 12, 1890. Serial No. 371,227. (No model.)

To all whom it may concern:

Be it known that I, JOHN HAGGERTY, a citizen of the United States, and a resident of New York, in the county and State of New York, have invented a certain new and useful Improvement in Furnaces, of which the following is a specification.

My invention relates to plumbers' furnaces, and has for its object the provision of a device simple in construction, cheap in manufacture, and efficient in practical use.

To attain the desired end my invention consists in the construction and arrangement of parts hereinafter first fully described, and then pointed out in the claims.

In the drawings which form a part of this specification, Figure 1 represents a vertical central section of an article constructed according to my invention, and Fig. 2 is a transverse section on the line *x x*, Fig. 1.

Like letters of reference wherever they occur indicate corresponding parts in both figures.

Referring again to the drawings, A represents the furnace proper, ordinarily constructed of heavy sheet metal and provided with malleable-iron legs and grate and also with a suitable handle, and being of about the same size as the regular furnace for plumbers' and others' use. The furnace A is also provided with, preferably, two interiorly-projecting vertical bearings *a*, located opposite each other at or near the top of the same, at the lower portion of which bearings *a* are placed the projections or stops *a'*.

The pot B, which contains the metal to be melted, is furnished with a handle of ordinary description, and is also provided with lateral vertically-grooved lugs or ears *b*, adapted and arranged to engage with and slide down upon the bearings *a*, the grooves being deeper at the bottom of the lugs than at the top, thus forming offsets or shelves *b'*, which serve when the pot B has completed its downward course to rest against and to be supported by the stops *a'* of the bearings *a*. The size, location, and arrangement of the lugs *b*, offsets *b'*, bearings *a*, and stops *a'* are ordinarily so determined with relation to the grate C that when the pot B is supported by the stops *a'* the bottom of the same ordinarily rests about two inches above the grate,

there being usually a space of about two inches also left between the exterior of the pot and the inner face of the shell of the inclosing furnace.

In practical operation the furnace is charged with charcoal and the pot containing the metal to be melted placed upon the same, the lugs *b* engaging with the bearings *a*. As the charcoal burns away, the pot slides down, following the fire, as represented in Fig. 1, until it rests upon the stops *a'*. The annular space between the pot B and furnace A affords means for feeding the latter by the tender, who can pack charcoal under and around the pot.

By the use of my improved furnace all danger of spilling the molten metal is obviated, inasmuch as the pot cannot be overturned. It can, however, be removed without trouble at any time when required for use and afterward readily replaced.

As it is evident that many slight changes in the construction and relative arrangement of parts might be resorted to without departing from the spirit and scope of my invention, I would have it understood that I do not restrict myself to the particular construction and arrangement of parts shown and described, but that I reserve the right to make such changes, and that

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with a furnace provided with lateral bearings carrying a stop at their lower extremities, of a pot provided with lugs adapted and arranged to engage with the said furnace-bearings, whereby the pot may descend vertically within the furnace and be sustained within the same at a fixed point above the grate, substantially as described.

2. The combination, with a furnace provided with lateral bearings and charged at the lower portion of the same with burning charcoal, of an interior pot supported by the charcoal and provided with lugs adapted and arranged to engage with the furnace-bearings, whereby the pot may descend vertically within the furnace and slide down upon the said bearings resting upon and following the fire, substantially as described.

3. The combination, with a furnace provided with lateral bearings extending inwardly, of

a pot provided with lugs projecting from the
same and adapted and arranged to engage
with the said furnace-bearings, whereby the
pot may descend vertically within the fur-
5 nace, thereby providing at all times an annu-
lar open space between the pot and furnace,
substantially as described.

In testimony of the foregoing specification

I do hereby sign the same, in the city of New
York, county and State of New York, this 24th 10
day of October, A. D. 1890.

JOHN HAGGERTY.

Witnesses:

J. ODELL FOWLER, Jr.,

TIMOTHY L. MURPHY.