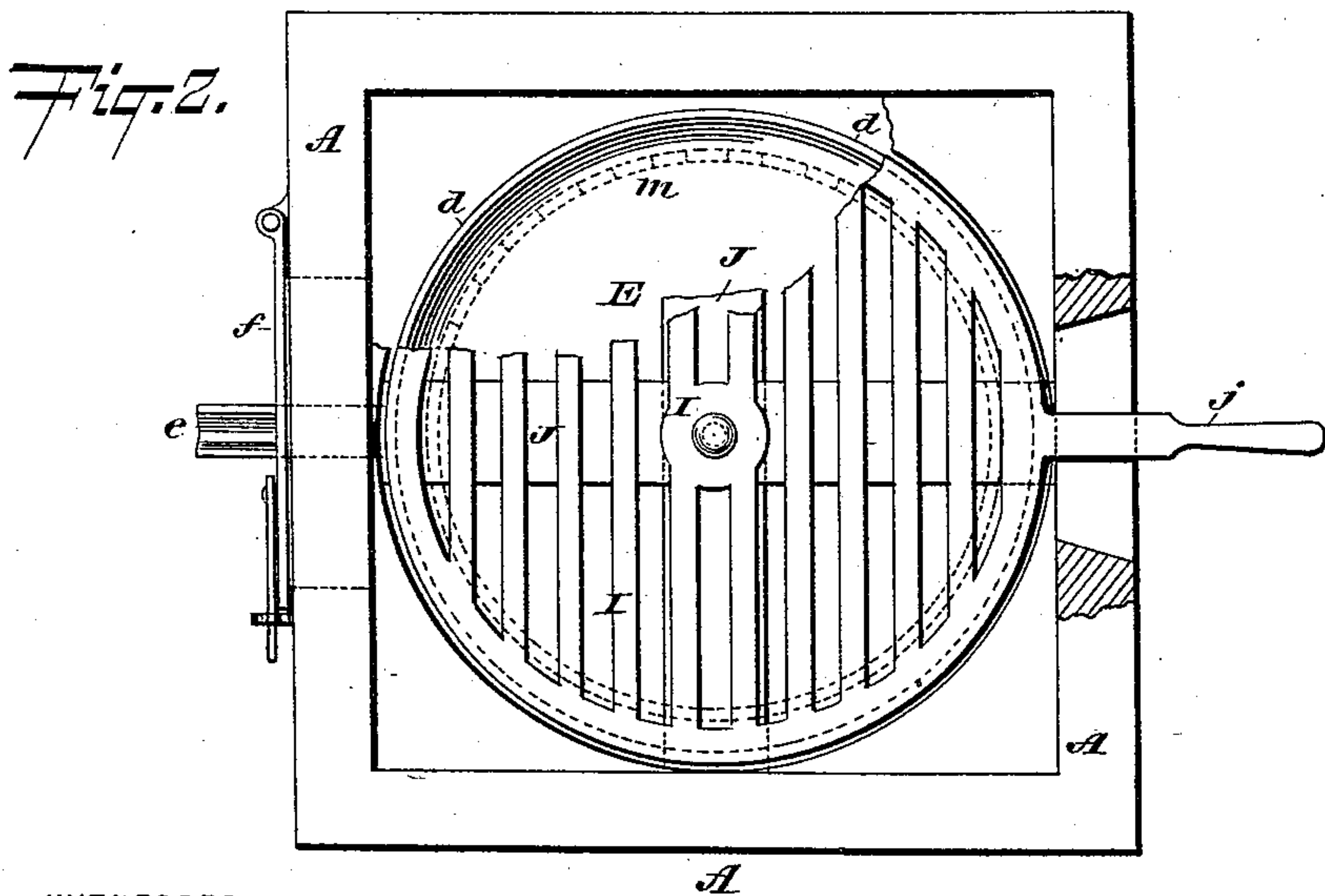
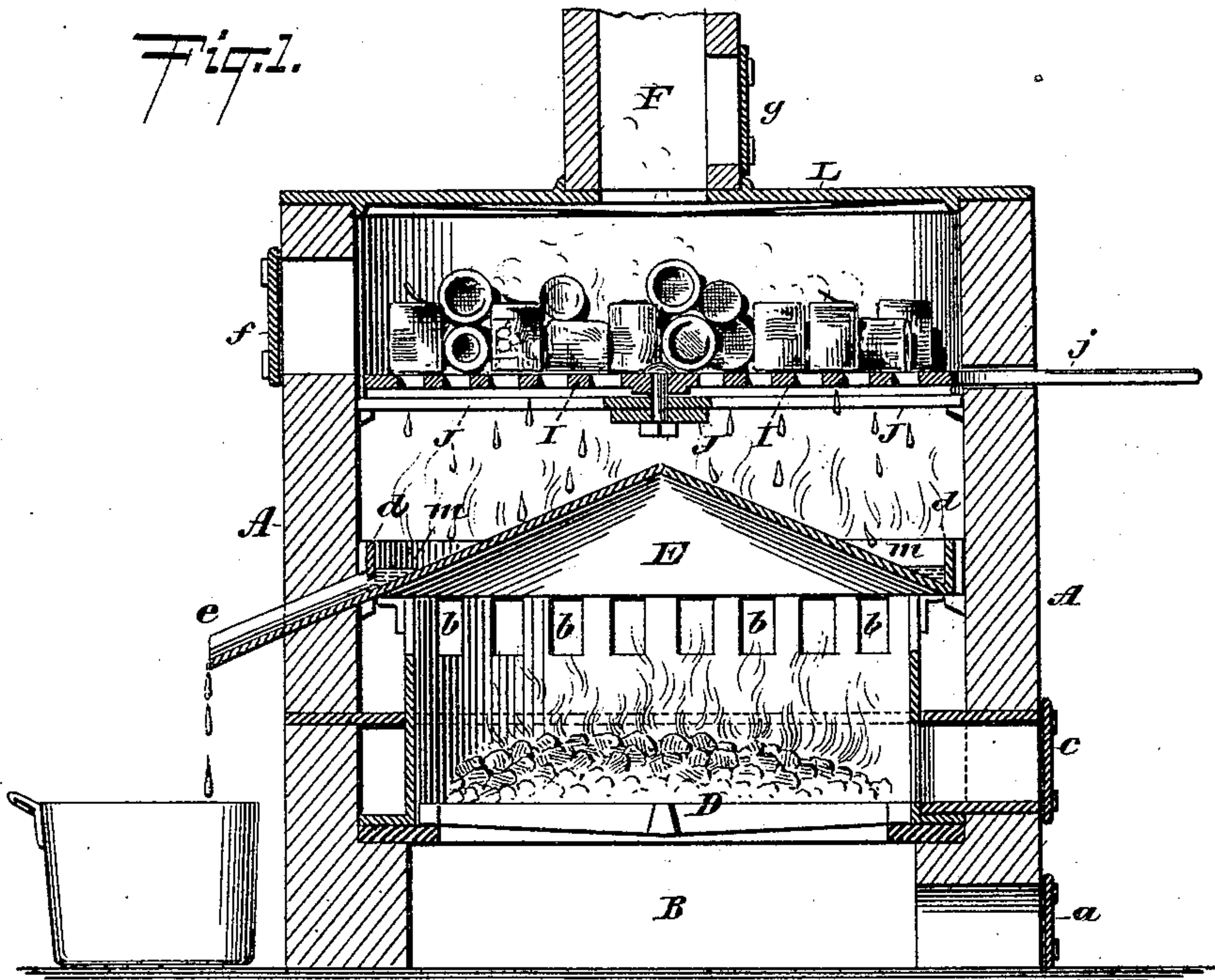


(No Model.)

A. BICKELHOUP.
FURNACE.

No. 454,937.

Patented June 30, 1891.



WITNESSES:

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UNITED STATES PATENT OFFICE.

ADAM BICKELHOUP, OF NEW YORK, N. Y.

FURNACE.

SPECIFICATION forming part of Letters Patent No. 454,937, dated June 30, 1891.

Application filed January 21, 1891. Serial No. 378,512. (No model.)

To all whom it may concern:

Be it known that I, ADAM BICKELHOUP, of New York, N. Y., have invented an Improved Furnace, of which the following is a specification.

My invention relates to an improved furnace consisting of the combination of elements hereinafter clearly shown and described.

The object of my invention is to construct a furnace in which old tin cans or the like may be placed and in which by means of the heat the solder and tin are melted and caught in a suitable trough, from whence they are carried off for use in the arts, while the remaining iron may be removed from the furnace and utilized in any desired manner.

The accompanying drawings illustrate my invention, wherein—

Figure 1 is a vertical sectional elevation of my furnace. Fig. 2 is a plan view of the furnace with the top removed, parts being shown as broken away.

A A are the exterior walls of my furnace, and L is a suitable top or cover for the same.

B is the ash-pit, which may have a door *a*.

D is the fire-grate, made, preferably, of circular form and of hollow grate-bars.

E is a dome or shell, within which the grate D is contained. *b b* are perforations near the top of said dome, through which the draft is maintained toward a suitable chimney F.

c is a door provided to facilitate the regulation of the fire and admission of fuel.

On the upper side of the dome E is an upright flange *d*, which forms a trough *m*. At one point in this trough *m* is a spout *e* for flowing off such liquid as may be contained in the said trough.

Directly above the dome E is a grate I, which may be suitably held so as to be movable or not, as desired. One form of fastening is

shown in the drawings, in which the grate I is supported and pivoted upon a bar J, extending across the structure under the grate I; but I do not wish to limit myself to this specific construction. Upon this grate are placed old tin cans or such metal as it is desired to free from the solder or tin thereon. Access to this portion of the furnace may be had through a door *f* in the furnace or through a door *g* in the chimney F.

In operation it will be seen that when the heat within the furnace has reached the proper temperature the solder, tin, &c., from the old cans, &c., will melt and drop onto the dome E and run down into the trough *m*, from whence it flows off through the spout *e*. When it is desired to agitate the cans on the grate I, said grate may be oscillated by means of the handle *j*.

Having now described my invention, I claim—

1. The combination, in a furnace having the perforated fire-dome E above its fire-place, of the fire-grate D in the fire-place, the trough *m* above the fire-dome, the grate I above the fire-dome, and the trough *m*, all arranged substantially as and for the purpose herein shown and described.

2. The combination, in a furnace having fire-grate D and perforated fire-dome E above said grate, and the chimney F, communicating with the perforations in the fire-dome, of said grate D, dome E, chimney F, the trough *m*, having spout *e*, the movable grate I, having handle *j*, the parts *m*, *e*, and I being between the dome E and the chimney, substantially as herein shown and described.

ADAM BICKELHOUP.

Witnesses:

HARRY M. TURK,
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