

(No Model.)

J. KELLER.
FURNACE ASH SIFTER.

No. 529,389.

Patented Nov. 20, 1894.

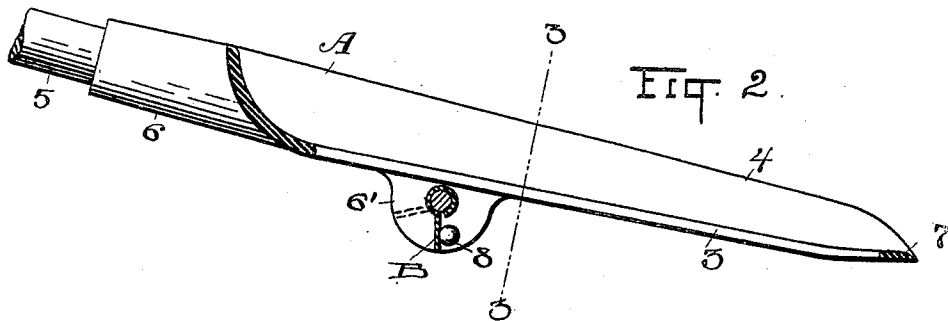
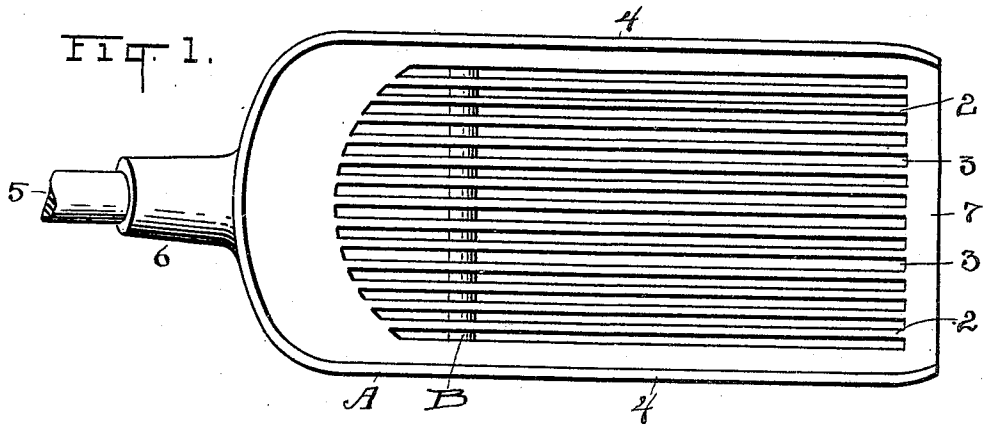
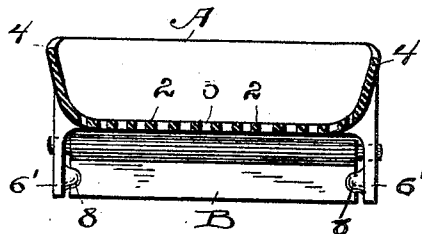


FIG. 3.



ATTEST.

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FURNACE ASH-SIFTER.

SPECIFICATION forming part of Letters Patent No. 529,389, dated November 20, 1894.

Application filed May 16, 1894. Serial No. 511,496. (No model.)

To all whom it may concern:

Be it known that I, JACOB KELLER, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Furnace Ash-Sifters; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to a furnace ash sifter, and the object of the invention is to provide a device whereby ashes may be sifted in the ash-pit of a furnace and before they are removed therefrom, thereby saving much time and labor and promoting cleanliness in the work.

My invention, therefore, consists in a furnace ash sifter constructed and operating substantially as shown and described and particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a plan view of my improved furnace ash sifter. Fig. 2 is a side elevation thereof with the nearest edge of the device broken away in section so as to disclose the construction more clearly; and Fig. 3 is a cross-section on line 3, 3, Fig. 2.

In one point of view the device resembles a separating or sifting shovel, and the construction is partly of the form of a shovel, but in its nature and use it is essentially a sifter.

The body A has a longitudinally slotted bottom with a series of panels —2— running substantially the full length of the bottom, and slots or openings —3— between said panels of sufficient width to serve the purpose of a sifter for ashes. The sides —4— of the body are turned up after the manner of a shovel and are of suitable elevation to do the appointed work, and the handle —5— is secured in the socket —6— in any well-known way.

The body of the device as thus constructed may be formed of any suitable metal and in any practicable way, and may, therefore, among other ways, be cast complete, substantially as shown, or it may be stamped out in dies from sheet metal; but the sifter would be practically inoperative and useless without the additional features on the sides and

bottom, consisting of the sliding and rocking supports —6'—, which come toward the rear of the body of the sifter and are of just sufficient elevation to give the desired inclination to the sifter and to keep it always above the floor of the furnace in sifting condition. These legs or supports are cast integral with the body of the sifter if the sifter itself be made of cast metal, but if it be formed out of sheet metal they would be attached by rivets or otherwise, as might be found convenient. It will be noticed that these supports or legs give a certain fixed elevation to the rear part of the sifter when the front edge —7— thereof is down upon the floor of the furnace, and they are intended at all times to slide on the floor when the sifter is used in sifting. Then as the sifter is pushed forward and given a back and forth reciprocating motion, more or less, the contents thereof are agitated over its open-work bottom and the ashes are sifted through while the cinders remain on the sifter. They may then be cast directly into the furnace or into an outside receptacle or place.

In order that the ashes beneath the sifter may be drawn toward the door of the furnace for removal, I provide a transverse swinging plate B, pivoted at its ends and top in the supports —6'—. It is designed that this plate shall act only when the sifter is drawn back, so as to serve the purpose of scraping the ashes toward the door and clearing the way for the sifter to work, and to this end it is made free to swing back as seen in dotted lines Fig. 2, when the scraper goes forward, but when it comes back the said plate B engages against projections —8—, or their equivalent, on the supports —6'— and is kept in horizontal position and compelled to do its work.

If preferred, I might substitute wheels or rollers for the rigid supports —6'—.

By this construction of sifter the sifting can be done in the most cleanly way, for it is only necessary to open the furnace draft at the rear by proper adjustment of the dampers to cause a suction of air inward through the ash-pit door and thereby effectually prevent all dust or ashes from escaping.

Having thus described my invention, what I claim is—

1. The shovel shaped sifter described having supports on its bottom on which the sifter rests, and a handle at one end, substantially as set forth.
- 5 2. A shovel shaped ash sifter having an open work bottom, a handle, and projections back of its center and at its sides and bottom, said projections serving to lift the sifter from the floor and as bearings on which the sifter
10 is reciprocated back and forth, substantially as set forth.
3. A sifter for ashes constructed with a longitudinally slotted bottom, supports for the
15 sifter on each side thereof extending below said bottom, a handle and a swinging ash

scraper across beneath said bottom, substantially as set forth.

4. The sifter described provided with an open work bottom, supports for the sifter at its sides and rear extending below said bot- 20 tom and an ash scraping plate across beneath the bottom of the sifter, substantially as set forth.

Witness my hand to the foregoing specification this 3d day of May, 1894.

JACOB KELLER.

Witnesses:

H. T. FISHER,

GEORGIA SCHAEFFER.