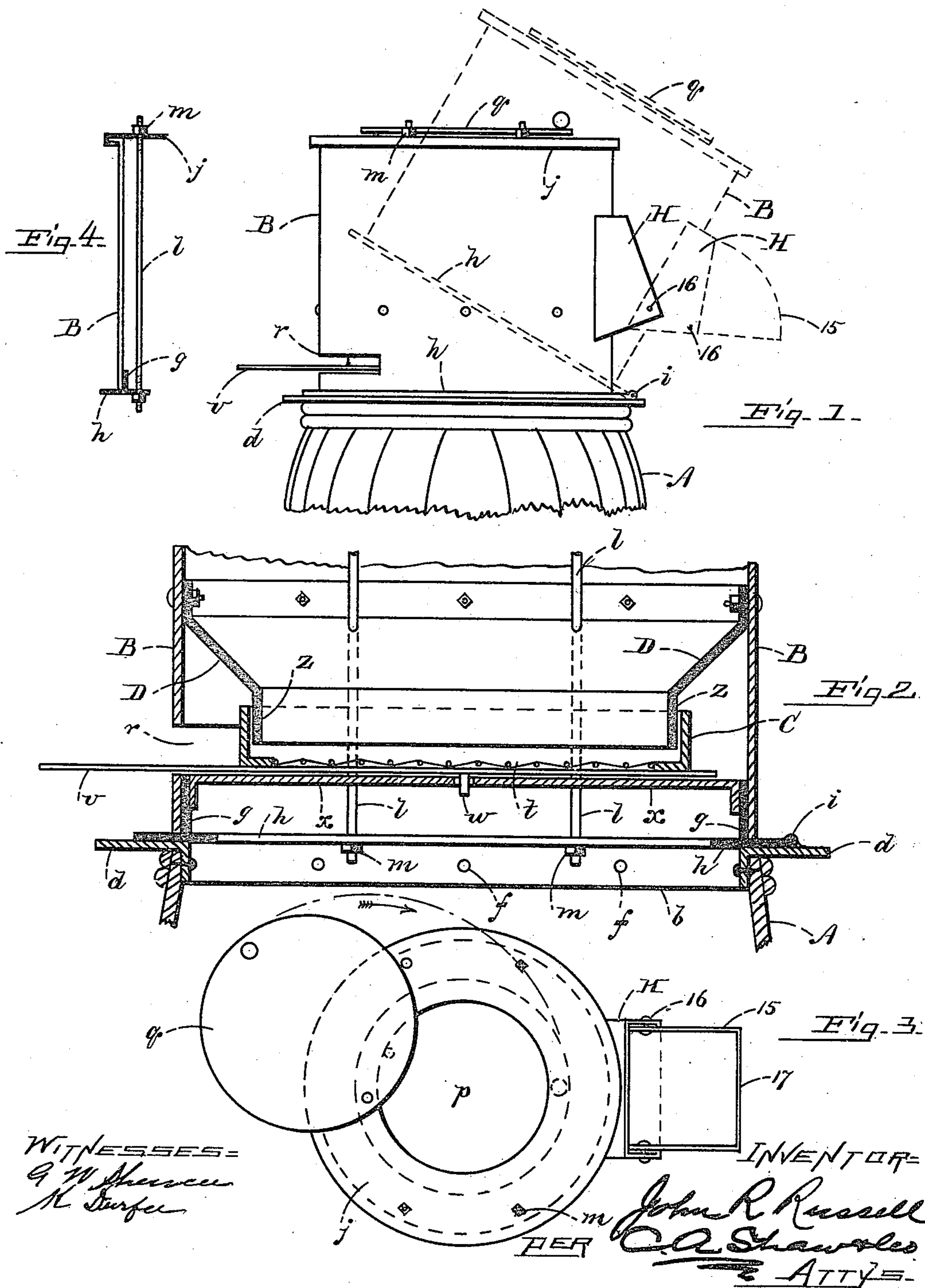


(No Model.)

J. R. RUSSELL.
ASH SIFTER.

No. 440,966.

Patented Nov. 18, 1890.



UNITED STATES PATENT OFFICE.

JOHN R. RUSSELL, OF SOMERVILLE, MASSACHUSETTS.

ASH-SIFTER.

SPECIFICATION forming part of Letters Patent No. 440,966, dated November 18, 1890.

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To all whom it may concern:

Be it known that I, JOHN R. RUSSELL, of Somerville, in the county of Middlesex, State of Massachusetts, have invented a certain new and useful Improvement in Ash-Sifters, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is an elevation showing my improved sifter in use on a barrel; Fig. 2, an enlarged vertical transverse section of the same; Fig. 3, a top plan view of the sifter, and Fig. 4 a sectional view illustrating details.

Like letters and figures of reference indicate corresponding parts in the different figures of the drawings.

My invention relates to that class of ash-sifters which are adapted for use with barrels and similar ash-receptacles; and it consists in certain novel features hereinafter fully set forth and claimed, the object being to produce a simpler, cheaper, and more effective device of this character than is now in ordinary use.

The nature and operation of the improvement will be readily understood by all conversant with such matters from the following explanation.

In the drawings, A represents the barrel, and B the body of the sifter. A ring *b*, adapted to be inserted in the mouth of the barrel A, is provided with a horizontal annular flange *d*, which rests upon the upper edge thereof and supports the sifter. The ring *b* has a series of holes *f* to receive bolts, whereby it may be secured to said barrel.

The body B consists of a metallic cylinder secured to a vertical annular flange *g* on a flat ring *h*, hinged at *i* to the flange *d*. The top *j* is rimmed onto the body B, as shown at *k* in Fig. 4, and is secured to the ring *h* by rods *l* and nuts *m*. The top is open at *p*, said opening being closed by a horizontally-pivoted lid *q*. A slot *r* is formed in the walls of the body B above the ring-flange *g*.

A circular sifter proper C, provided with solid side walls and a bottom *t*, constructed of wire-cloth or similar reticulated fabric, is se-

cured to a rod *v*, which projects through the slot *r* and serves as a handle for manipulating the shaker. The rod *v* is pivoted by a pin *w* in a horizontal brace-rod *x*, secured to the ring-flange *g*.

A funnel-shaped chute D is secured within the body B, the vertical walls *z* of its mouth projecting into the sifter proper *p*.

A discharge-chute H opens into the body B on the side opposite the slot *r* and above the chute D.

A guide-chute 15, segmental in end elevation, is pivoted at 16 by its inner corner in the mouth of the chute H, said chute 15 being so constructed that its walls 17, Fig. 3, will close said mouth when turned inward on its pivot.

In use the coal and ashes are emptied into the top opening *p* of the body B and directed by the funnel-chute D into the sifter proper C. The sifter proper is oscillated rapidly by means of the handle *v*, and the ashes separated from the coals fall through the bottom thereof into the barrel. The discharge-chute H, closed by the guide 15, prevents the dust arising from passing out. When the ashes have been thoroughly sifted from the coals, the guide-chute 15 is thrown outward and the body B tipped backward on its hinge *i*, as shown by dotted lines in Fig. 1. The coals in the sifter proper may thus be readily discharged through the chute H into any suitable receptacle.

The funnel-chute D may be omitted, if desired, and the sifter proper constructed to fit sufficiently close in the body B to prevent the ashes from falling between it and said body, or said body may be extended laterally in its lower part and the sifter proper enlarged to project under said extension.

Having thus explained my invention, what I claim is—

1. In an ash-sifter, a cylindrical body hinged to a flanged ring, a horizontally-oscillating screen pivoted within said body, a funnel-shaped chute within the body projecting into said sifter, and a discharge-chute in the rear wall of said body, substantially as described.

2. In an ash-sifter, a cylindrical body provided with a pivoted lid and secured to a flange-ring by vertical rods, an oscillating screen pivoted to a cross-bar on said ring, a

chute secured within the body and projecting into said sifter, a flanged ring adapted to be secured to an ash-receptacle and hinged to the body-ring, and a discharge-chute in the side walls of said body, substantially as described.

3. In an ash-sifter, a cylindrical body, a top therefor provided with a central opening, a pivoted lid, a flanged ring at the bottom of said body secured to the top by bolts, a sifter proper secured to a rod projecting through a slot in said body and pivoted to a brace on said ring, a chute secured within the body and projecting into the sifter, a flanged ring adapted to be secured to an ash-receptacle and hinged to the body-ring, a discharge-chute in the body-wall, and a segmental guide-chute pivoted in the mouth of said discharge, substantially as described.

4. In an ash-sifter, the body B, hinged to the ring *b* and provided with the discharge-chute H, having the pivoted guide-chute 15, substantially as and for the purpose set forth.

5. In an ash-sifter, the body B, provided

with the top *j*, secured to the flanged ring *h* by bolts *l*, in combination with the ring *b*, hinged to said ring *h*, the sifter C, pivoted on the brace *x* and provided with the handle *v*, projecting through the body-wall, and the chute D, arranged substantially as described.

6. In an ash-sifter, a body hinged to an ash-receptacle and provided with a horizontally-oscillating sifter proper, a chute for directing the coals therein, and a discharge-chute in the side of said body, provided with a pivoted guide-chute adapted to close the mouth thereof, substantially as described.

7. In an ash-sifter, the body B, hinged to the ring *b* and provided with the chutes D H, in combination with the pivoted guide-chute 15 and the oscillating sifter proper C, having the handle *v*, projecting through said body, all being arranged to operate substantially as described.

JOHN R. RUSSELL.

Witnesses:

K. DURFEE,

O. M. SHAW.