

ASH SIFTER.

No. 308,740.

Patented Dec. 2, 1884.

Fig. 1.

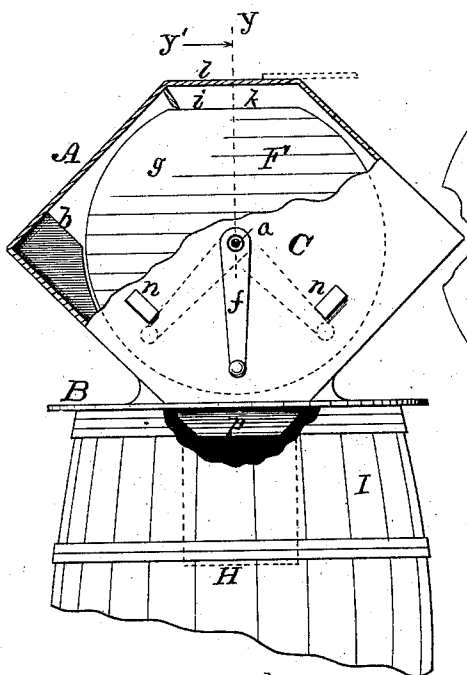


Fig. 2.

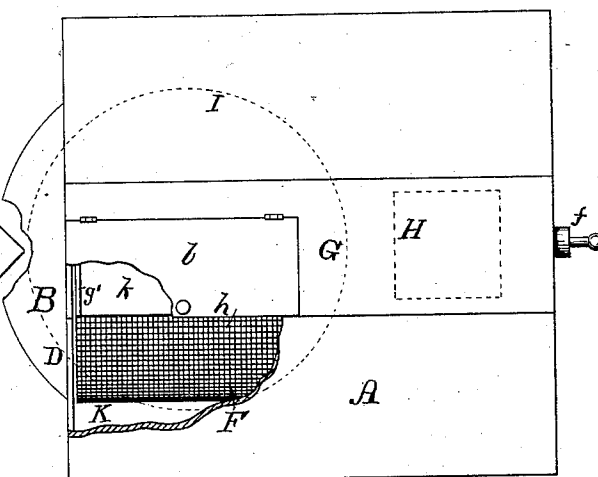
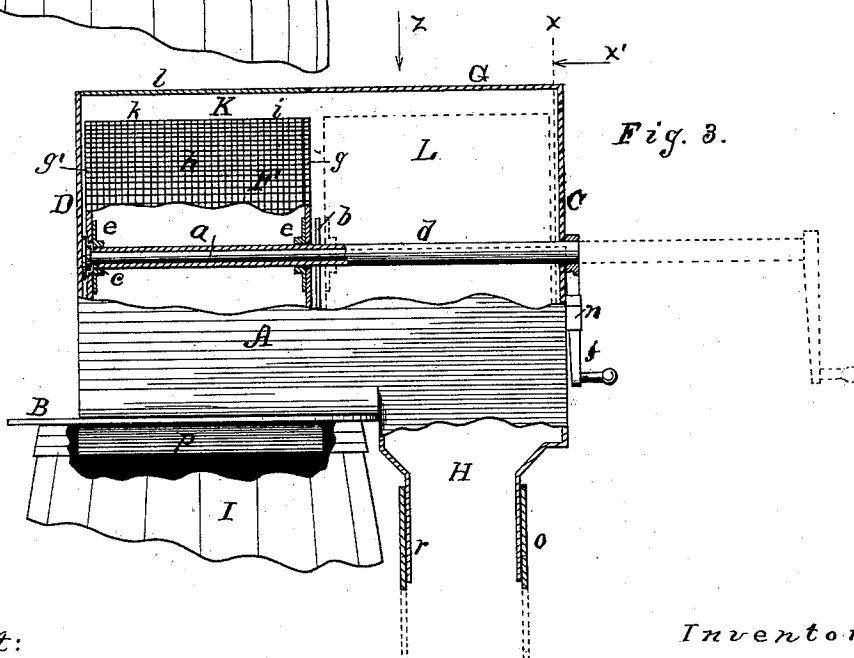


Fig. 3.



Attest:

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UNITED STATES PATENT OFFICE.

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ASH-SIFTER.

SPECIFICATION forming part of Letters Patent No. 308,740, dated December 2, 1884.

Application filed January 28, 1884. (No model.)

To all whom it may concern:

Be it known that I, THOMAS R. BOONE, of Rochester, in the county of Monroe and State of New York, have invented a new and useful Improvement in Ash-Sifters, which improvement is fully set forth in the following specification and accompanying drawings.

My invention relates to that class of ash-sifters in which circular sieves are mounted within boxes or inclosures upon horizontal shafts and rotated or turned thereon; and it consists in parts and their combinations herein below fully described, and more particularly pointed out in the claims.

Referring to the drawings, Figure 1 is an end elevation of the device, showing the same mounted upon a barrel, with parts broken away and transversely sectioned upon the dotted line *x* in Fig. 3, and viewed as indicated by arrow *x'*; Fig. 2, a plan of the same, viewed as indicated by arrow *z* in Fig. 3, with parts broken away; and Fig. 3, a side sectional elevation of the same, with parts broken away and centrally longitudinally sectioned upon the dotted line *y* in Fig. 1, and viewed as indicated by arrow *y'*.

Referring to the parts, A is a prismatic case or box inclosing the sieve, which I prefer to make substantially rectangular in cross-section, with two of the longitudinal corners clipped or cut away, as shown, forming a narrow face, G, at the top and outlet openings at the bottom, described farther on.

B is a flange or base for the case A, and so connected with the case that the latter shall be held diamonding, or so that the planes of the four principal faces shall each form an angle of forty-five degrees with the plane of said base.

C and D are the end boards of the case, and *b* is a transverse partition within the latter, midway between the ends C D, dividing the case into two chambers, K and L.

a is a straight shaft (preferably made of gas-pipe for the sake of lightness) secured to the inner surface of the head D by means of a collar, *c*, in such a manner that it shall lie in the axis of the case or prism A, the opposite end of which shaft reaches just through the opposite head, C, of the case.

d is a sleeve (being of larger gas-pipe) fitted

to slide over the shaft *a* and turn thereon, extending from the collar *c* to a distance without the head C sufficient to receive an actuating handle or crank, *f*.

F is the sieve, which is substantially cylindrical in form, with the sleeve *d* passing through its axis, to which sleeve the sieve is rigidly secured by means of collars *e e*. The partition *b* does not divide the whole interior of the case, but only the lower portion of it beneath the sieve, and at the sides thereof. The sieve in length is slightly less than that of one of the chambers of the case formed by the partition *b*, and the latter is cut out so the sieve may be moved longitudinally past it and be made to occupy either of the chambers or apartments of the case at pleasure. This will be clearly understood by viewing Fig. 3, in which the sieve is shown in full lines as occupying the left chamber, K, of the case; but by drawing the sleeve *d* outward from the case, as shown in dotted lines, the sieve will be brought to occupy the right chamber, L, thereof.

The sieve I prefer to make with two parallel end boards or heads, *g g'*, secured to the sleeve *d* by means of collars *e e*, as above stated, with a sheet of wire-cloth, *h*, secured to their peripheries, leaving an open space, *k*, at one side to constitute the mouth of the sieve, through which it may be filled and emptied. There is a segment cut from the corresponding edges of each of the heads *g g'* of the sieve at *i i*, as shown, and the wire-cloth not being extended across these straight or cut edges the mouth *k* above mentioned is formed. The sieve is not rotated on its axis while in operation, and the mouth *k* is not closed. A door, *l*, through the upper narrow face, G, of the case admits, when opened, of the sieve being filled therethrough. The crank *f* is opposite the mouth of the sieve, so that when it extends down the mouth is up, as shown.

In use the sieve, which is caused to occupy the left chamber, K, of the case under the door *l*, as shown in full lines in Fig. 3, is filled with the cinders and ashes to be sifted. The door is then closed to prevent the escape of dust, and the sieve rocked upon the shaft *a* by means of the crank.

In the operation of rocking the sieve the crank swings close along the face of the head

C of the case, and stop-blocks *n n*, secured to the head, limit the oscillations of the crank in each direction, as shown in Fig. 1. These stop-blocks not only limit the motion of the crank, but they serve to give a sudden jolt to the sieve every time the crank collides with them, which is useful in the operation of sifting. After the contents of the sieve are sufficiently sifted, the sleeve *d* is drawn out from the case, as above stated, bringing the sieve into the right chamber, *L*, of the box, when, by means of the crank, it is inverted, to allow the cinders to fall down through the opening or spout *H* into a receptacle placed thereunder.

During the operation of sifting the implement is designed to be placed upon a barrel, *I*, as shown, or some other convenient receptacle for the ashes, which, falling from the sieve, pass out through an opening or spout at *p*, through the lower face of the case. The flange *B* rests upon and closes the mouth of the barrel *I*, to prevent the escape of dust therefrom. The spout *H* is made in two parts, an inner part, *r*, and an outer part, *o*, and is extendible or vertically adjustable, as shown, the outer part, *o*, being fitted to slide longitudinally upon the exterior of the inner spout, *r*. The case of this sifter may be made only half the length and with but a single chamber, if desired, the sieve having only longitudinal motion enough to enable the crank to clear the stops *n n*, for the purpose of dumping. The case may also be placed upon legs, so that a barrel or other receptacle for the ashes and cinders may be placed under it or removed therefrom.

This device may be used for a vegetable-washer as well as for sifting ashes, by placing the vegetables in the sieve and immersing the lower part of the case in a vessel of water, so that the lower part of the sieve shall be submerged.

What I claim as my invention is—

1. In an ash-sifter, a prismatic box or case, *A*, a shaft, *a*, secured to one of the heads of said case, and coinciding with the axis of the latter, and a sleeve, *d*, fitted to slide over the shaft *a* and turn thereon, in combination with a sieve, *F*, secured to the sleeve, by means of which said sieve may be moved longitudinally within the case and rocked upon the shaft *a*, substantially as shown, and for the purpose set forth.

2. An ash-sifter comprising a prismatic body or case, *A*, divided into two chambers having independent outlets *p* and *H*, a shaft, *a*, secured to one of the heads of the case, a sleeve, *d*, fitted to slide over the shaft *a* and turn thereon, and a sieve secured to the sleeve, so as to be movable longitudinally to occupy either chamber of the case, substantially as set forth.

3. The combination, in an ash-sifter, of hollow prismatic body or case *A*, an axial shaft, *a*, and sleeve *d*, a sieve, *F*, oscillating crank *f*, and stops *n n*, substantially as shown and described.

T. R. BOONE.

Witnesses:

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M. D. PHILLIPS.