(No Model.)

H. A. & I. J. TRENCH.

SIFTER.

No. 248,532. Patented Oct. 18, 1881.

Fig. 1.

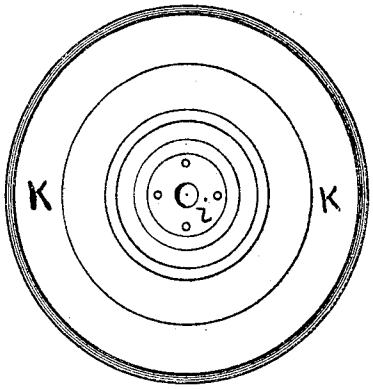


Fig. 2.

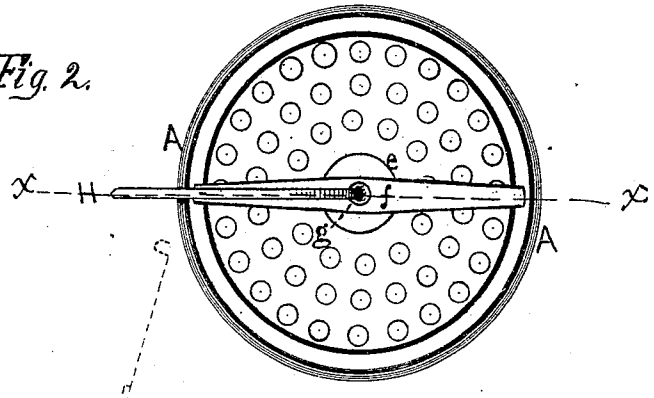
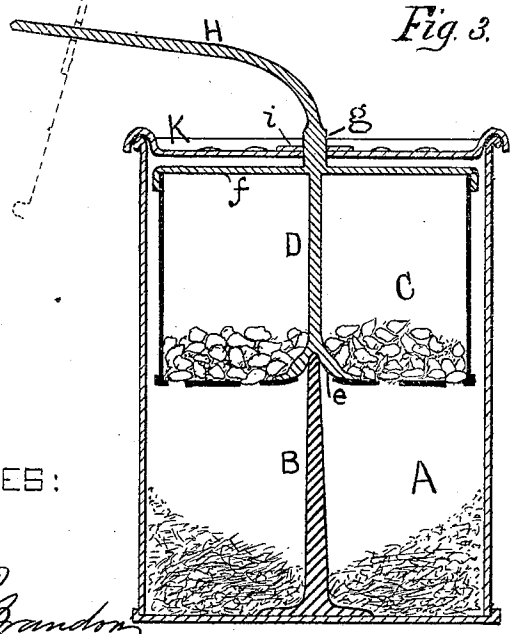


Fig. 3.



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UNITED STATES PATENT OFFICE.

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SIFTER.

SPECIFICATION forming part of Letters Patent No. 248,532, dated October 18, 1881.

Application filed July 18, 1881. (No model.)

To all whom it may concern:

Be it known that we, HENRY A. TRENCH and IRA J. TRENCH, of the city, county, and State of New York, have invented certain new and useful Improvements in Sifters; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

This invention relates to certain improvements in that class of ash-sifters having a supported rotary sifter arranged within a closed vessel, by which the coals and ashes from stoves, furnaces, &c., can be readily separated without creating dust in the apartment where such sifting is performed.

Our invention consists in a revolving sieve adapted to be supported upon a central pivotal axis, constructed or provided with a central bar, the base or lower end of which forms a step or socket for a pivotal axis, and the upper end prolonged upward and bent over to form a handle for the sieve.

Our invention further consists in a revolving cylindrical sieve adapted to be supported upon a central pivotal axis, constructed or provided with a central bar attached to the bottom of the sieve, in combination with the transverse bar, arranged near the upper end of the central bar having its outer ends bent downward over the upper edge of the cylindrical sieve.

Our invention further consists in the novel construction and combination of parts, as will be hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan view of the cover; Fig. 2, a top view of the pail with the sieve inserted therein, but with the cover removed; and Fig. 3 is a central vertical section through the apparatus, with the cover thereof in place, on the line *x x* of Fig. 2.

A is a cylindrical pail, preferably made of galvanized iron; B, a central standard or pivot, of wrought or malleable iron, having a wide base, by means of which the standard is riveted centrally to the bottom of the pail.

C is a cylindrical sieve, which may be made of perforated sheet metal or of galvanized wire. This sieve is fitted to a central supporting-bar, D, also made of wrought or malleable iron, having a wide base, *e*, by means of which the bar is firmly riveted to the bottom of the sieve; a transverse diametric strap-bar, *f*, by which it is confined centrally at the top of the sieve, and a handle projecting above the sieve in a right line far enough to provide a central journal at *g*, and which is then bent over to form a crank-handle, H, for the sieve.

The lower side of the base *e* of the supporting-bar D is hollowed out to form a central conical socket, designed to receive and rest upon the end of the pivot B, and to guide the end of the pivot to its seat, and its conical enlargement serves to throw the ashes away from the center toward the sides. The outer ends of the transverse bar *f*, secured near the upper end of the central supporting-bar, D, are bent downward (see Fig. 3) to fit over the upper edge of the sieve or sifter to brace the same firmly.

K is a metallic cover fitting closely upon the pail, and provided with a central aperture reenforced by a collar, *i*, to furnish a bearing for the journal *g* upon the handle H of the sieve.

The handle H is made smaller than the journal *g*, so that the cover may be slipped easily over the handle and upon said journal.

The pail-cover and sieve are readily made of sheet metal. The fittings are cast in malleable iron and easily riveted to the pail and sieve, and the device is then ready for use.

In use the sieve is placed in the pail with its socket *e* resting upon the top of the pivot B, the latter being of such length in proportion to the depth of the sieve as to bring the top of the latter just below the top of the pail. The ashes to be sifted are then placed in the sieve, the cover slipped over the handle (see dotted lines, Fig. 3) and secured upon the top of the pail, and the sieve then shaken by means of the handle, which receives proper support from its bearing in the cover. The cover prevents effectually any escape of dust in the operation. The cinders, after sifting, remain in the sieve and may be removed and returned to the stove, leaving the ashes in the pail to be carried out.

The sieve C may be made of wire in a semispherical form, so that the bottom shall be con-

cave, that centrifugal force developed in rotating the sieve will, as it throws the ashes against its sides, expedite its sifting action.

This invention, although specially adapted for sifting ashes, is also designed, when properly constructed, for sifting flour and other materials.

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

1. In an ash-sifter, a revolving sieve adapted to be supported upon a central pivotal axis, constructed or provided with a central supporting-bar, the base of which is formed with a step or socket for the pivotal axis, and the upper end prolonged upward and bent over to form a handle for the sieve, substantially as described.

2. In an ash-sifter, a revolving cylindrical sieve adapted to be supported upon a central pivotal axis, constructed with a central bar attached to the bottom of the sieve, and formed with socket *e*, in combination with the transverse bar attached near the upper end of the central bar, with its outer ends bent downward over the upper edge of the cylindrical sieve, as described.

3. The improved sifter, consisting of the case or pail A, with the pivot B, sieve C, with the central supporting-bar, D, formed with a socket, *e*, and handle H, and provided with the transverse bar *f*, and cover K, substantially as described.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

HENRY A. TRENCH.
IRA J. TRENCH.

Witnesses:
J. F. ACKER,
DAVID A. BURR.