(No Model.)

A. HAENICHEN.

ASH SIFTER.

No. 588,745. Patented Aug. 24, 1897.

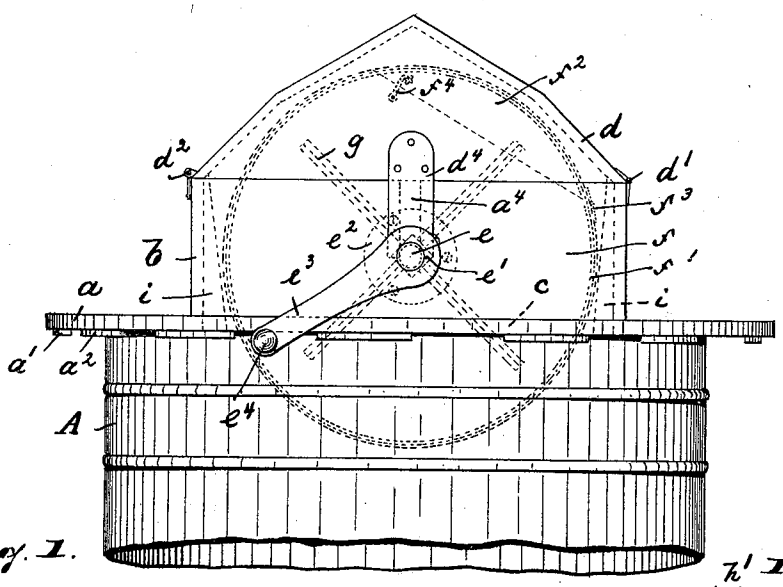


Fig. 1.

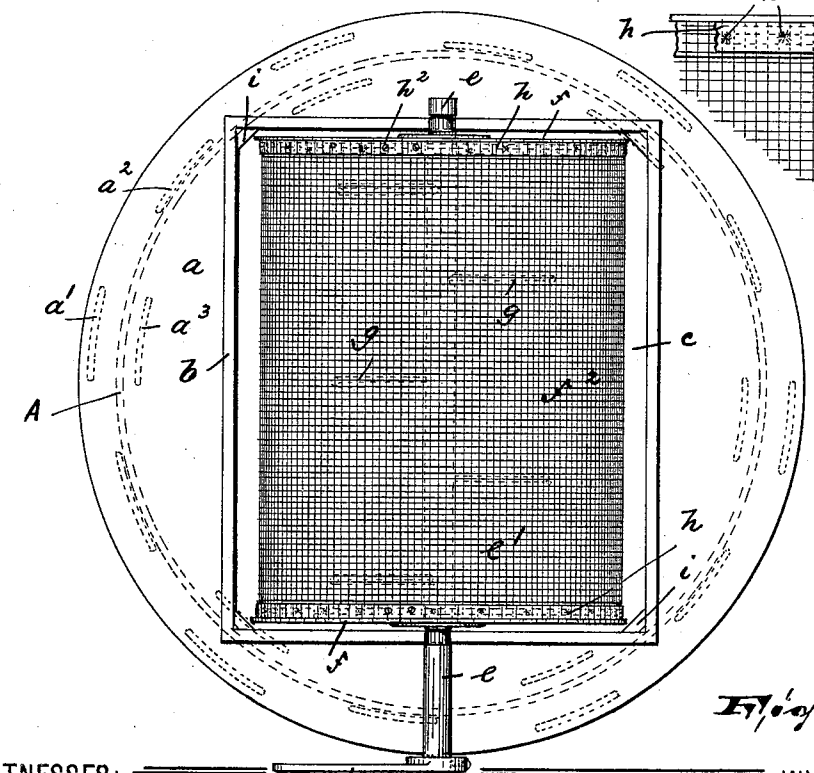


Fig. 2.

Fig. 3.

WITNESSES:

Wm. D. Bell.

Duncan M. Robertson.

INVENTOR:

Adolph Haenichen

BY Dartner & Co ATTY'S.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ADOLPH HAENICHEN, OF PATERSON, NEW JERSEY, ASSIGNOR OF ONE-THIRD TO CHRISTIAN SAAL, JR., OF SAME PLACE.

ASH-SIFTER.

SPECIFICATION forming part of Letters Patent No. 588,745, dated August 24, 1897.

Application filed January 29, 1897. Serial No. 621,225. (No model.)

To all whom it may concern:

Be it known that I, ADOLPH HAENICHEN, a citizen of the United States, residing in Paterson, county of Passaic, and State of New Jersey, have invented certain new and useful Improvements in Ash-Sifters; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of this invention is to provide a rotary sifter, especially applicable for coal, ashes, flour, &c., of simple, strong, and durable construction, quick and reliable in operation, and easily and conveniently handled.

The invention consists in the improved rotary sifter and in the combination and arrangement of the various parts thereof, substantially as will be hereinafter more fully described and finally embodied in the clauses of the claim.

In the accompanying drawings, Figure 1 is a side elevation of my improved sifter, illustrated in connection with a portion of a can or vessel; Fig. 2, a top plan view of Fig. 1, the lid or cover being removed; and Fig. 3, an enlarged detail view showing the means for attaching the sieve or screen to its supporting-flanges.

In said drawings, *a* represents a frame or bed-plate, preferably circular, provided with a square or rectangular opening *c* and on its under side with a series of alternately-arranged curved lugs or projections a' a^2 a^3, concentric with the periphery of the frame or bed-plate and adapted to engage the edge of a circular can or vessel. By having the said lugs arranged in circles of different radii the said frame or bed-plate can be used on cans of different diameters, as will be manifest. Secured on the frame and surrounding the opening *c* is the box or receptacle *b*, provided with a lid *d*, hinged, as at d', and adapted to be securely locked to said box by means of a lock or catch d^2 of any suitable construction. Two opposite sides of said box or receptacle *b* are provided with vertically-arranged elongated slots a^4, extending to about the center thereof and adapted to form the bearings for the rounded ends *e* of the square shaft e'. At or near each end of said shaft and within the box *b* are secured the circular disks *f*, to the annularly-reduced portions of which are secured the ends of the cylindrical-shaped sieve or screen f'. The said ends are firmly held in position by means of the metal strips or bands *h*, provided with a series of intermediate depressions or indentations h', adapted to engage the said disks *f*, and having their free ends secured to said disks by screws h^2, all as clearly shown in Figs. 2 and 3. A lid or cover f^2 for the cylindrical sieve or screen is formed by segmental-shaped portions of the disks *f* and of a portion of the sieve or screen proper and is hinged thereto, as at f^3, and provided with a catch or lock f^4 of suitable construction.

To the sides of the lid or cover *d* for the box or receptacle *b* and in alinement with the elongated slots a^4 in the sides of the latter are secured the downwardly-extending plates d^4, adapted to cover or close up the said elongated slots, and also by engaging the rounded portions *e* of the square shaft e' to prevent the removal of the latter.

On one end of the shaft e' is secured a crank e^3, with handle e^4 for conveniently rotating the said shaft, which latter is provided within the cylindrical sieve or screen with a series of arms or breakers *g*, arranged alternately and preferably at right angles to said shaft. The corners of the box or receptacle *b* are provided with inclined blocks *i*, adapted to more completely prevent the escape of dust should the can or vessel A be of small diameter and thus come within the corners of the opening.

If preferred, the shaft e' does not need to extend across the cylindrical sieve or screen, in which case the rounded portions *e* are secured to annular flanges e^2, which in turn are firmly attached to the disks *f*, as will be manifest.

In operation the lid *d* of box *b* and the lid f^2 of the cylindrical sieve are opened, and after the material to be sifted has been placed in the said sieve are again closed. The shaft e', carrying the sieve, is then rotated, causing the material to be thrown around, when the

dust or smaller portions will penetrate the meshes and drop into the can or vessel A, while the larger portions will be retained in the said sieve. The arms or breakers greatly facilitate the agitation, as will be manifest. When the operation of sifting has been completed, the lid *d* is opened, thus releasing the ends of the shaft *e'* and allowing the sieve to be withdrawn for the purpose of emptying.

Having thus described the nature of my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In an ash-sifter, adapted to be mounted on circular receptacles of different diameters, the combination with a rotary sifter, of a supporting-plate provided with a central rectangular opening, a series of curved lugs concentrically and alternately arranged in circles of different radii and projecting downward from said supporting-plate, and a rectangular-shaped box upwardly projecting from said plate and surrounding the central opening therein and suitably supporting said rotary sifter, all said parts, substantially as and for the purposes described.

2. In an ash-sifter, adapted to be mounted on circular receptacles of different diameters, the combination with the supporting-plate provided with a central rectangular opening, a series of curved lugs concentrically and alternately arranged in circles of different radii and projecting downward from said supporting-plate, a rectangular box upwardly projecting from said supporting-plate and surrounding the central opening therein, and a rotary sifter suitably supported in said box and projecting into and through the central opening of the supporting-plate, all said parts, substantially as and for the purposes described.

3. In an ash-sifter, adapted to be mounted on circular receptacles of different diameters, the combination with the supporting-plate provided with a central rectangular opening, of a rectangular box upwardly projecting from said supporting-plate and surrounding the central opening therein, an inclined block in each corner of the rectangular box and adapted to close the openings formed between the sides of the central opening in the supporting-plate and the outer periphery of the receptacle on which said supporting-plate is placed, and a rotary sifter suitably mounted in said rectangular box and projecting into and through the central opening of the supporting-plate, substantially as and for the purposes described.

4. In an ash-sifter, adapted to be mounted on circular receptacles of different diameters, the combination with the supporting-plate provided with a central rectangular opening, of a rectangular box projecting upwardly from said supporting-plate and surrounding the central opening therein and provided at opposite sides with vertical elongated slots, a shaft removably arranged in said slots, a cylindrical sifter mounted on said shaft and projecting into and through the central opening of the supporting-plate, and an inclined block in each corner of the rectangular box and adapted to close the openings formed between the sides of the central opening in the supporting-plate and the outer periphery of the receptacle on which said supporting-plate is placed, all said parts, substantially as and for the purposes described.

In testimony that I claim the foregoing I have hereunto set my hand this 25th day of January, 1897.

ADOLPH HAENICHEN.

Witnesses:
ALFRED GARTNER,
WM. D. BELL.