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F. ECKSTEIN ET AL

ASH SIFTER

Filed Jan. 5, 1925

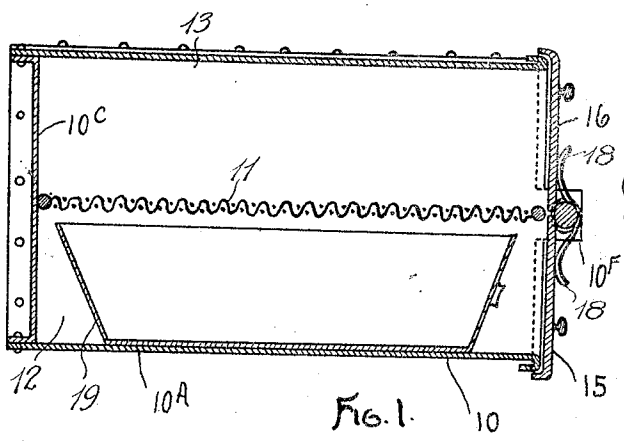


FIG. 1.

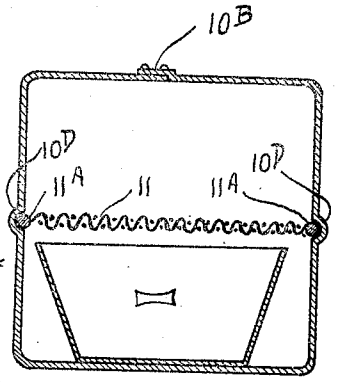


FIG. 2.

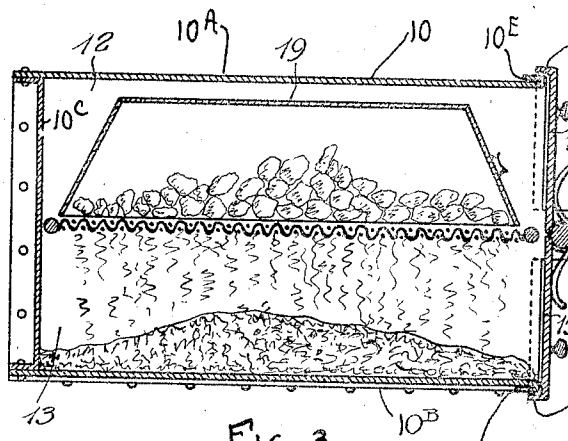


FIG. 3.

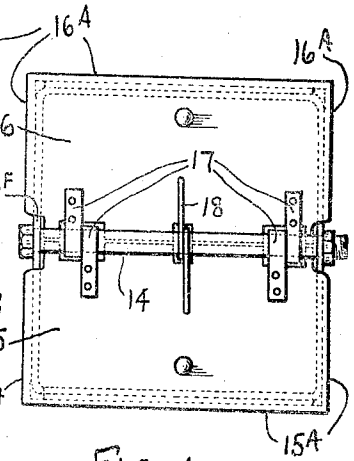


FIG. 4.

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UNITED STATES PATENT OFFICE.

FRANK ECKSTEIN AND LOUIS ECKSTEIN, OF CHICAGO, ILLINOIS.

ASH SIFTER.

Application filed January 5, 1925. Serial No. 518.

This invention relates to improvements in ash sifters and has among its objects to improve the construction of such devices with a view of providing a simplified construction which shall afford a low manufacturing cost.

Another object of our invention resides in the provision of a dustless sifter which is completely enclosed and which permits the sifting of the ashes for separating the unburnt coal and cinders from the ash.

With these and other objects in view, our invention consists in the novel combination, construction and arrangement of the parts and members shown on the attached drawings, described in the following specifications and particularly pointed out in the appended claims.

Referring to the drawings, in which like reference characters denote like or corresponding parts, Fig. 1 is a longitudinal section through an ash sifter embodying our invention. Fig. 2, is a cross section of same, Fig. 3 is also a longitudinal section with the sifter in inverted position. Fig. 4 is a front or end view of the sifter showing the door construction.

Referring to the illustrations, 10 indicates the body of the sifter which is made from a single piece of material 10^A bent at the corners to provide a tubular casing or body of rectangular cross section. The material 10^A may be joined together with a butt joint as at 10^B or with a lap joint.

The rear end of the casing 10 is closed with the end 10^C which is flanged around its edges for riveted connection as shown.

The casing 10 is formed with longitudinal grooves 10^D for support of the frame 11^A of the screen 11, which grooves 10^D are pressed outwardly from the inside of the casing.

The longitudinal screen 11 divides the interior of the casing into an ash can compartment 12 and the ash compartment 13.

The front upper and lower edges 10^E of the casing 10 are bent over the body to provide means for stiffening of these edges.

The casing 10 is further provided with a pair of aligned integral extensions or ears 10^F which afford a support for the hinge rod 14 to which we hingedly mount the doors 15 and 16 on the hinges 17. A coiled spring 18 is wound around the rod 14 with its ends engaging the doors 15 and 16 for retaining them in normal closed position.

The doors 15 and 16 are cut out to provide clearance for the ears 10^F, hinges 17 and spring 18.

The doors 15 and 16 are respectively formed with flanged edges 15^A and 16^A for providing practically dust proof closures around the discharge edges of the casing.

In operation, the ash pan 19 is placed with the ashes into the ash pan compartment 12 by opening door 15 against the pressure of spring 18 which retains same in closed position, then the casing 10 is inverted into the position shown in Fig. 2, and bodily lifted and shaken until the ashes are thoroughly sifted through the screen 11, after which sifting operation the door 16 is opened and the ashes are then scraped or dumped out of the ash compartment 13 whereupon the casing 10 is again reverted to the original position as shown in Fig. 1. The ash pan is then withdrawn through door 15 with the unconsumed coal.

We claim:

1. An ash sifter embodying a casing comprising a tubular body of a single piece of material, a flanged end fixed within one end of said body for closing said end, a screen supported in said body extending longitudinally thereof, a pair of supports on said body extending beyond the open end thereof, a hinge rod supported on said supports on the plane of said screen, and a pair of doors hingedly mounted on said rod for closing the open end of said body.

2. An ash sifter embodying a casing comprising a tubular body of rectangular cross section made of a single piece of material, a flanged end fixed within one end of said body for closing said end, a pair of longitudinally extending grooves formed within opposed walls of said body, a screen supported in said grooves, a pair of supports on said body extending beyond the open end thereof, a hinge rod supported on said supports on the plane of said screen, and a pair of doors hingedly mounted on said rod for closing the open end of said body.

3. An ash sifter embodying a casing comprising a tubular body of rectangular cross section made of a single piece of material, a flanged end fixed within one end of said body for closing said end, a pair of grooves extending longitudinally with opposed walls of said body, a screen supported in said grooves, a pair of laterally aligned ears

integral with said body extending beyond the open end thereof and on a plane with said screen, a hinge rod supported in said ears, and a pair of doors hingedly mounted on said rod for closing the open end of said body.

4. An ash sifter embodying a casing comprising a tubular body of rectangular cross section made of a single piece of material, a flanged end fixed within one end of said body for closing said end, a pair of grooves extending longitudinally with opposed walls of said body, a screen supported in said grooves, a pair of laterally aligned ears integral with said body extending beyond the open end thereof and on a plane with said screen, a hinge rod supported in said ears, and a pair of normally resiliently closed doors hingedly mounted on said rod for closing the open end of said body.

5. An ash sifter embodying a casing comprising a tubular body of rectangular cross section made of a single piece of material, a flanged end fixed within one end of said body for closing said end, a pair of grooves extending longitudinally with opposed walls of said body, a screen supported in said grooves, a pair of laterally aligned ears integral with said body extending beyond the open end thereof and on a plane with said screen, a hinge rod supported in said ears, a pair of doors hingedly mounted on said rod for closing the open end of said body, and a coil spring on said rod having its ends in engagement with said doors for retaining same in closed position.

In witness whereof we affix our signatures.

FRANK ECKSTEIN.
LOUIS ECKSTEIN.