April 28, 1931. H. HELFENBEIN 1,803,112

ASH SIFTER

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Fig. 2

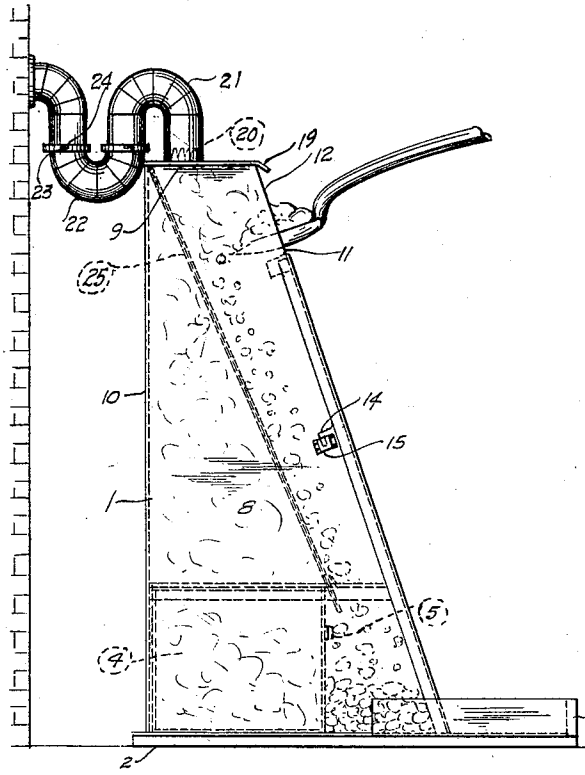


Fig. 1

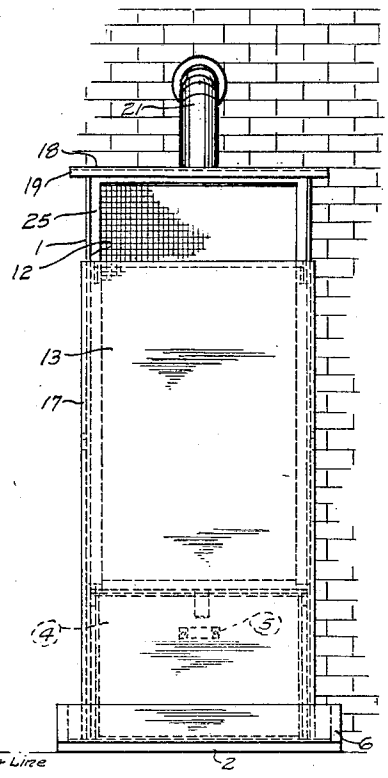


Fig. 5

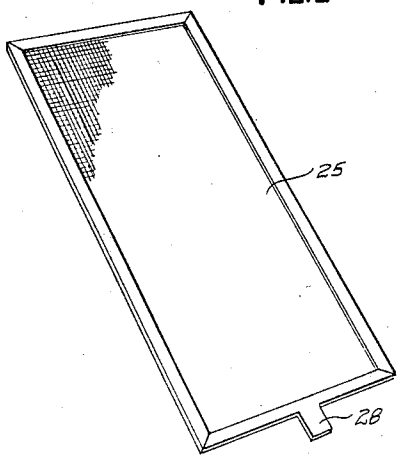
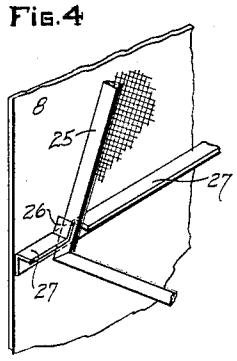


Fig. 4



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Fig. 3

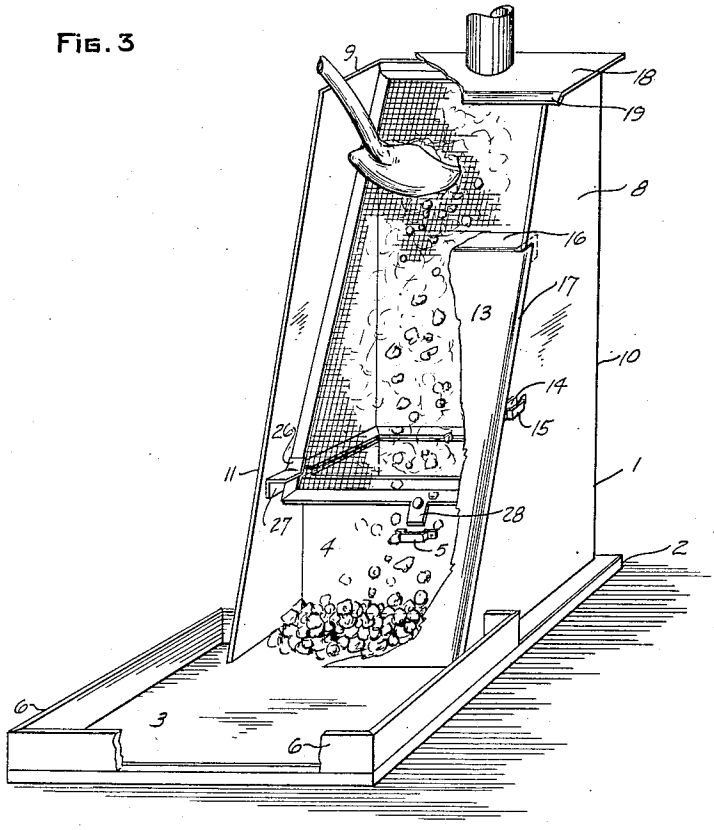


Fig. 6

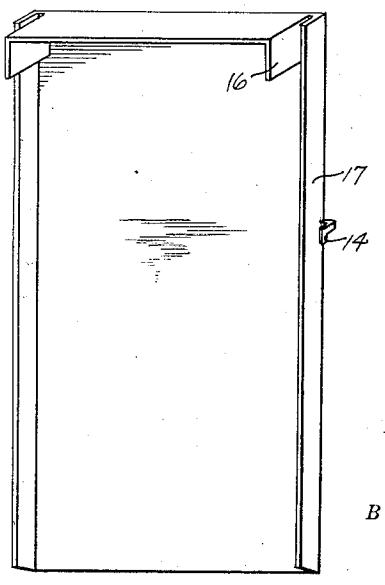
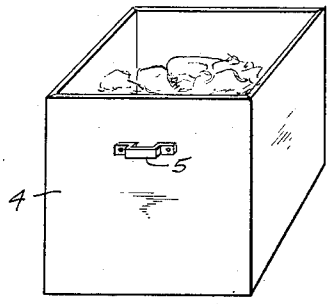


Fig. 7



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Patented Apr. 28, 1931 1,803,112

UNITED STATES PATENT OFFICE

HARRY HELFENBEIN, OF CLEVELAND, OHIO

ASH SIFTER

Application filed January 20, 1930. Serial No. 422,168.

This invention relates to an ash sifter adaptable to general use in the household, its object being to separate the unburned coal and ashes without causing any dust to be diffused in the process.

In the accompanying drawings:

Fig. 1 is a front elevation of the apparatus.

Fig. 2 is a side elevation showing the disposal of the unburned coal and the ashes.

Fig. 3 is a perspective view cut away to show the manner in which the coal and ashes are separated.

Fig. 4 is a broken away section of the screen and supporting member.

Fig. 5 is a perspective view of the screen.

Fig. 6 is a back view of the front cover for the casing.

Fig. 7 is the ash container.

Again referring to the drawings, the upright casing 1 has a base 2 upon which rests a bottom sheet of metal indicated at 3, upon which the ash receptacle 4 having a handle 5 is placed under the screen 25 to receive the waste. The front part of the plate 3 receives the unburned coal which drops in front of the ash receptacle 4.

The base 2 is provided with a flange or wall 6 which extends across the front thereof, in front of the casing 1, and along each side of the said casing for a short distance then turns and abuts against the side walls 8 of the casing 1. The side walls 8 are narrow at the top 9, the back 10 being vertical and the front edges 11 inclining forwardly and downwardly to the base. The casing 1 is open at 12 at the top and front, through which opening the unburned coal and ashes are dropped, the open front of the casing 1 being closed to within a short distance of the top by means of a front plate 13 which is removably fastened to the side walls 8 by means of hooks 14 which drop into brackets 15 on the side walls 8. The front cover 13 at its upper end has a flanged bent over portion 16 projecting rearwardly and which fits inside and between the side walls 8, and also has side flanges which fit on the outside of the side walls 8 and to which the hooks 14 are attached.

The top 18 of the casing is bent downward slightly at the front as indicated at 19, and the metal in the middle of the top is cut and bent upward, forming a round opening 20 with a metal neck over which the pipe 21 is fitted. This pipe has a removable bend 22 which may be slipped off by turning it slightly to release the pin 23 from the slot 24. This bend 22 receives most of the light dust which arises as the unburned coal and ashes are emptied into the casing 1. The fine ashes sift through the screen 25 which is held at an angle, with the top resting against the back 10 and its base fitting into the upturned flanges 26 of the supporting angles 27 on the inside of the side walls 8, and having a projecting tongue 28 which rests against the front upper edge of the ash container or receptacle 4. This arrangement allows the unburned coal to drop down along the screen to the metal plate 3 into the space between the ash receptacle 4 and the lower end of the front plate 13.

The front plate 13 may be removed and the unburned coal that has collected there may be removed to allow the ash receptacle 4 to be withdrawn and emptied.

In use the ashes or material to be screened is shoveled into the top opening and falls down the screen 25. The fine stuff falls through the screen and into the box 4, and the cinders pass over the surface of the screen and are deposited on the bottom plate 3, from which they may be shoveled and saved. Fine light dust is drawn off through the pipe 21 and the stack to which it is connected, or will be caught in the bend 22 which can be detached and emptied at intervals.

While the construction and arrangement of the parts have been described more or less specifically, it is to be understood that obvious modifications may be made as comes within the scope of the appended claims.

I claim:

1. A sifter comprising an upright casing having a bottom plate, an inclined screen in the casing, a removable box under the screen, and a removable front plate on the casing, the lower end of the front plate resting upon the bottom plate at a distance from the box, forming a space for collecting the material which passes over the screen, the front end

of the botom plate having upstanding flanges to confine said material when the front plate is removed from the casing.

2. A sifter comprising a casing having a bottom plate and vertical side walls standing thereon, the front edges of said walls extending upwardly at an inclination backwardly from said base plate, an inclined screen between said walls, and a removable face plate resting at its lower end upon said base plate and at its side against said edges, said plate being of less height than the side walls to form an opening at the top of the casing.

In testimony whereof, I do affix my signature.

HARRY HELFENBEIN.