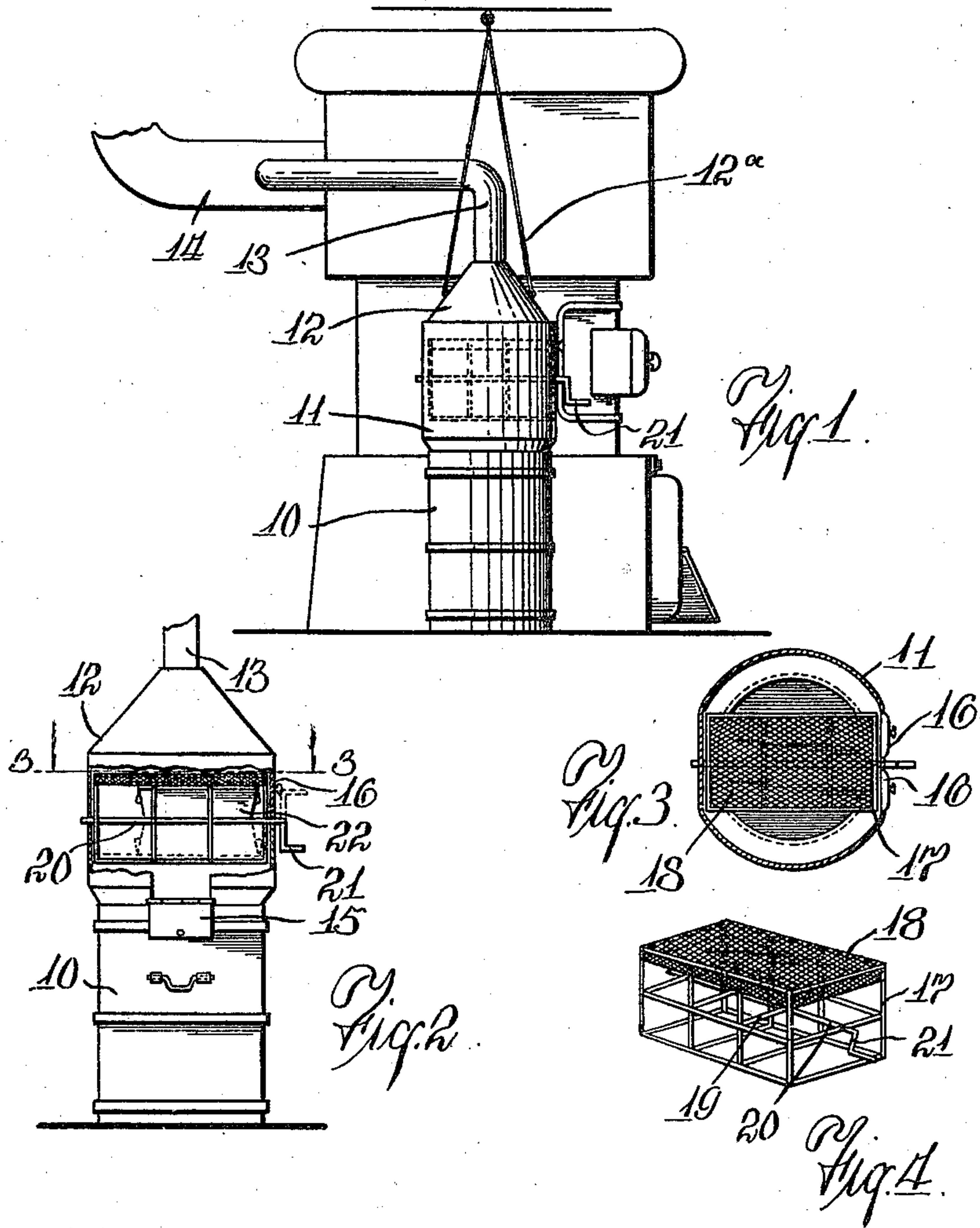


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ASH SIFTER.
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UNITED STATES PATENT OFFICE.

JOSEPH W. ROPER, OF EAST ORANGE, NEW JERSEY.

ASH-SIFTER.

976,099.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOSEPH W. ROPER, of East Orange, county of Essex, New Jersey, have invented a new and useful Improvement in Ash-Sifters, of which the following is a full, clear, and exact description.

My invention relates to improvements in ash sifters such as are adapted to connect with an ash can or barrel and with a flue or chimney so that ashes can be conveniently and thoroughly sifted, and thus the unburned portions will remain ready for use or to be carted away, while the volatile dust portions will pass off through the flue or chimney.

My invention is intended to produce a simple, economical and efficient device which can be easily applied to any ordinary ash barrel or can, which will also connect with any customary furnace flue or chimney, and which is constructed in such a way that the ashes from the furnace or from a range can be conveniently sifted without discharging the dusty portions over the person doing the work, and further to produce such a device in which the ashes can be conveniently dumped without sifting if desired, but in a neat manner so that the operator is at all times protected from dust. In carrying out my idea I arrange the sifting device or dumping device in close proximity to a furnace, and when the ashes are thrown into the apparatus, whether sifted or not, there will be a sufficient draft to carry off the dusty parts. I also arrange the device so that if desired the ashes can be conveniently sifted and the residue allowed to remain in the ash-pan or discharged into an adjacent barrel or other receptacle. The idea will be more fully understood from the description which follows.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar reference characters indicate corresponding parts in all the views.

Figure 1 is a side elevation of my improved apparatus arranged in close proximity to a common type of furnace. Fig. 2 is a similar view with parts broken away to show the inner arrangement. Fig. 3 is a sectional plan on the line 3—3 of Fig. 2. Fig. 4 is a detail of the rotary framework which is adapted to carry the ash-pan.

The invention is intended to use with a barrel 10 which can be any ordinary ash

barrel or other receptacle, but which should be of such a nature that the hood 11 can fit snugly over the top. The hood is provided with a conical top 12 which connects by means of a pipe 13 with a flue 14, but the latter can be any ordinary chimney or draft pipe. The hood 11 should be supported as for instance by means of the cables 12^a, but any form of support is suitable so long as it will hold up the hood 11 and permit the ash barrel or receptacle 10 to be conveniently moved from beneath it. The hood is provided with a door 15 on one side so that ashes can be conveniently shoveled into the hood and barrel 10, if desired, without sifting, and when this occurs there will be a sufficient draft through the pipe 13 to cause the fine particles to be drawn inward and upward so that the person doing the shoveling is not covered with ashes. It is well known that if ashes are dumped with ever so much care in a barrel or receptacle not provided with a draft, the fine ashes will blow up and fill the surrounding air and cover the operator, but with this device the tendency is for the particles to go inward and upward leaving the operator clean.

To provide for sifting the ashes any convenient device can be used which is contained in the hood 11, and I do not limit my invention to the precise structure shown. I have illustrated suitable doors 16, of any preferred construction, arranged in one side of the hood, and within the hood is a framework 17 of any preferred type, which as shown in Figs. 2 to 4 is of a generally rectangular shape, and has on one side, preferably the normal top, a screen 18, and thus the whole rotating affair forms a sifter. The framework has cross-bars 19 and a center bar 20 terminating in a crank 21 which projects outside the hood 11, and the center bar can be pivoted in the casing or wall of the hood. It will be seen that the whole framework 17 and sieve 18 forms a sifter which when rotated will permit the fine particles to pass through the sieve. This structure can be used either for sifting ashes shoveled into the hood, or for sifting them from an ash pan 22 such as is ordinarily used in a range. The ash pan is shoved in beneath the sieve 18 and over the parts 19 and 20 in which it rests. The doors 16 are closed, and then the sifter is rotated and the fine particles will pass up through the

pipe 13, some of the refuse particles will fall into the barrel 10 and the unburned coal will remain in the pan 22.

As has been stated the framework as shown in Figs. 2 to 4 is of generally rectangular shape and it has one side provided with a screen whereas the other side is open. Either side may receive the pan. When the contents of the pan is to be sifted the pan will be inserted in the frame with the top thereof in such relation to the screen 18 as to result in a sifting of the contents of the pan as the frame is rotated. If it is desirable to simply dump the contents of the pan without sifting it, the pan can be put in that section of the frame which is not screened and a rotation of the frame will result in dumping the pan into the receptacle without scattering ashes or diffusing the dust except that which is carried off by the draft provided by the connection which leads to the draft pipe.

From the foregoing description it will be seen that I have provided a very simple means for sifting ashes in a cleanly manner, or for dumping them without sifting if desired, all by the use of one piece of apparatus.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent:—

1. An apparatus of the kind described, comprising a hood provided with doors, a flue connection with the top and adapted to

sit upon an ash receptacle, a rotatable framework mounted in the hood with one of its ends opposite a door of the hood, a seat in the framework constructed to permit an ash pan to be pushed onto it, and to hold the said pan in place on either side of the seat, and a screen permanently attached to one of the sides of the framework so as to extend opposite the ash pan.

2. An apparatus of the kind described comprising a hood provided with doors, a flue connection at the top and adapted to sit upon an ash receptacle, a rotatable rectangular framework hung in the hood and provided with a seat to receive an ash pan when the latter is pushed into the framework, both sides of the seat being constructed to receive and support an ash pan, and a screen rigid on and forming a part of the framework on one of the sides of the framework opposite the seat of the ash pan.

3. In an ash sifter a hood adapted for attachment to a receptacle and provided with doors and a flue, a rotatable frame mounted in the hood, said frame having double seats each of which is adapted to aline with the door to permit the application of a receptacle to the said frame, a screen covering one of the seats, and means for holding the receptacle on the other seat.

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