T. W. COMSTOCK.

ASH SIFTER.

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1,017,205. Patented Feb. 13, 1912.

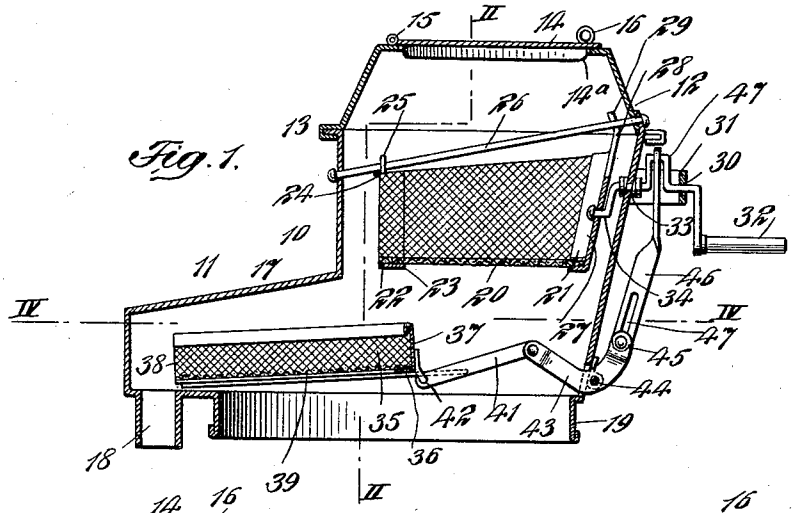

Fig. 1.

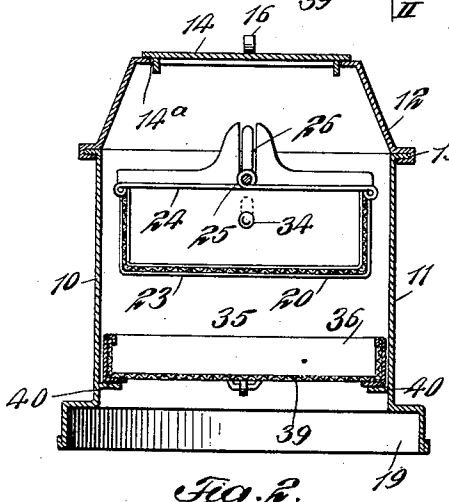

Fig. 2.

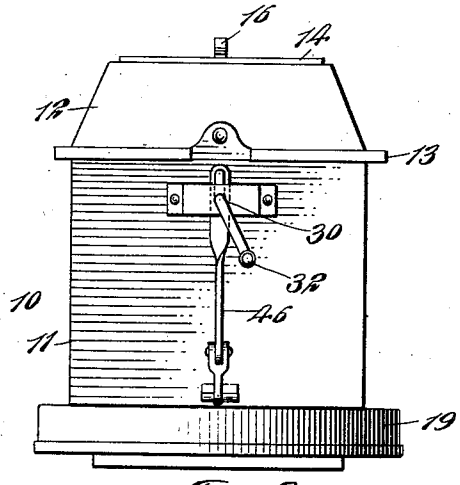

Fig. 3.

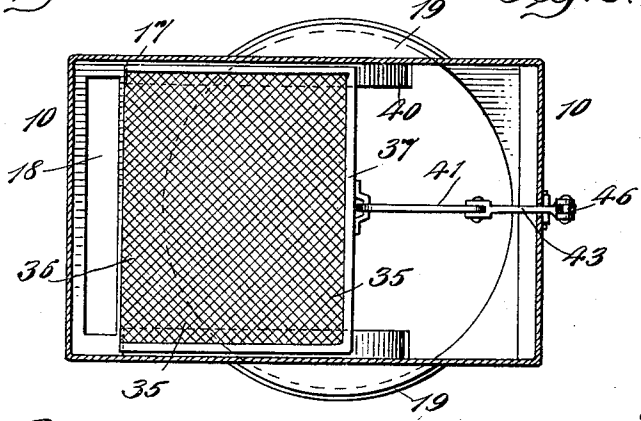

Fig. 4.

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UNITED STATES PATENT OFFICE.

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ASH-SIFTER.

1,017,205. Specification of Letters Patent. Patented Feb. 13, 1912.

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To all whom it may concern:

Be it known that I, THOMAS W. COMSTOCK, a citizen of the United States, and a resident of New Haven, county of New Haven, and State of Connecticut, have invented certain new and useful Improvements in Ash-Sifters, of which the following is a full, clear, and exact description.

This invention relates more particularly to a device for separating ashes and other particles from coal which has been exposed to fire, and which may be used again, and to cause the ashes and coal to pass from the device at different points in order that the two may be kept entirely separate.

One of the principal objects of the invention is to provide a simple and efficient device or apparatus in which coal mixed with ashes may be placed in a movable sifter member and said member given a movement to separate or partly separate the ashes or refuse from the more or less good coal which may be used over again, and the ashes made to pass into a receptacle provided therefor and the coal caused to be deposited in a second sifter member and there agitated in such a way that the refuse not previously separated may be removed from the coal and the coal caused to pass out of the apparatus to be received in a receptacle provided therefor entirely distinct and separate from the refuse or ashes.

Another object of the invention is to provide a device which may be readily and cheaply made and in which simple hand-operated mechanism is provided for operating the means for agitating and separating the coal from the ashes.

A further object of the invention is to provide a device which may be made entirely of metal if desired and which may be readily placed over a barrel or other receptacle serving as a receiver for the ashes or refuse from the coal, and to provide an exit for the good product or coal in such a way that the same may be collected as it passes from the device.

A still further object of the invention is to provide a device which may be substantially entirely closed so that the dust or particles will not escape from the device except into the receptacles provided therefor, so that any one may readily operate the same without having his clothes soiled or otherwise injured by the dust.

With these and other objects in view, the invention will be hereinafter more particularly described with reference to the accompanying drawings, which form a part of this specification, and will then be pointed out in the claims at the end of the description.

In the drawings, Figure 1 is a longitudinal section of one form of device or apparatus embodying my invention. Fig. 2 is a vertical transverse section taken on the line II—II of Fig. 1. Fig. 3 is a front elevation of the device; and Fig. 4 is a sectional plan taken on the line IV—IV of Fig. 1.

The casing 10 may be of sheet metal comprising a lower portion or member 11 and an upper portion or top 12, the two parts having interlocking flanges as at 13, whereby the top member and body portion or lower member may be substantially integral, though any other suitable form of casing or support may be employed. On the upper portion of the casing, is a cover or lid 14 which is adapted to close an inlet opening 14^a in said casing. This lid is hinged at 15 to the top 12 and may be provided with a handle 16 by which the lid may be raised in order that the coal or other material to be acted upon may be placed or dumped through the opening 14^a into the body. The casing or body 10 has an extended portion 17, from the lower end of which projects a spout or chute 18 through which the good product, or the coal if such is used, may be passed as will be hereinafter explained, and under which may be placed a hod or other receptacle to receive the coal as it is discharged from the casing. The member 11 of the casing or body 10 has a circular part or discharge 19 which is adapted to fit into the mouth of a barrel or other receptacle and through which discharge the ashes are adapted to pass.

A sifter member 20 is arranged under the opening 14^a and this member 20 is substantially rectangular in form being somewhat larger at one end, as at 21, than at the other or discharge end 22. The body of the member 20 may be of open mesh wire or otherwise constructed so that the ashes from the coal may pass therefrom, and said member is so located as to receive the coal and ashes as they are dumped into the casing through the opening 14^a. This member 20 has a band-like strengthening strip 23 at its discharge end 22 and extending transversely of

vertical direction at the other end thereof, means for rocking said member and at the same time elevating one end only thereof to impart a rocking and elevating movement to said member, and means whereby the refuse from the material is discharged from the casing.

2. A device of the character described, comprising a casing, a guide rod extending lengthwise of said casing, a sifter member suspended therefrom and supported to rock on said rod at one end and having a part guided to move freely at the other end thereof, and means for rocking said member and at the same time elevating one end only thereof to impart a rocking and elevating movement to said member.

3. A device of the character described, comprising supporting means, an inclined guide rod extending lengthwise of said casing, a substantially rectangular sifter member supported to rock on said rod at one end and having a part guided to move freely at the other end thereof, a reciprocatory sifter member located under and in advance of the first-mentioned member, means including a crank rod for rocking one end of the first mentioned member and simultaneously elevating the other end thereof, and means operated by said crank rod for operating the reciprocatory member.

4. A device of the character described, comprising a substantially closed casing having inlet and separate discharge openings, a rocking sifter member, a reciprocatory sifter member located under the first-mentioned member, a crank shaft connected to the first-mentioned member, means for operating said shaft, said shaft having a crank portion, guides for the reciprocatory member, a pivotally held lever, a link connecting the reciprocating member to said lever, and a loose connection between the crank and the lever whereby a limited reciprocatory movement may be given simultaneously with a rocking movement to the first-mentioned member.

5. A device of the character described, comprising a substantially closed casing having inlet and separate discharge openings, a sifter member having a rocking motion at one end and a rocking and elevated movement at the other, a reciprocatory sifter member located under the first-mentioned member, a crank shaft connected to the first-mentioned member, means for operating said shaft, said shaft having a crank portion, guides for the reciprocatory sifter member, a pivotally held lever, a link connecting the reciprocating member to said lever, and means for operating said lever.

6. An ash sifter comprising a casing, an inclined guide rod extending transversely across the upper end thereof, a sifter member having one end pivotally suspended from said rod, an extension at the other end of the sifter member and provided with a longitudinal slot for the reception of the guide rod to permit vertical movement of the extension and the end of the member that carries the same relative to said rod, an auxiliary sifter member in said casing, and means for simultaneously actuating both sifter members.

7. A device of the character described, comprising a support, a sifter member, a second sifter member located under the first mentioned sifter member and in advance thereof, and means for simultaneously cooperating with each of said sifter members for simultaneously imparting a vertical rocking movement to the first mentioned sifter member and a reciprocatory movement to the second sifter member.

This specification signed and witnessed this 13th day of June A. D. 1911.

THOMAS W. COMSTOCK.

Witnesses:

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