

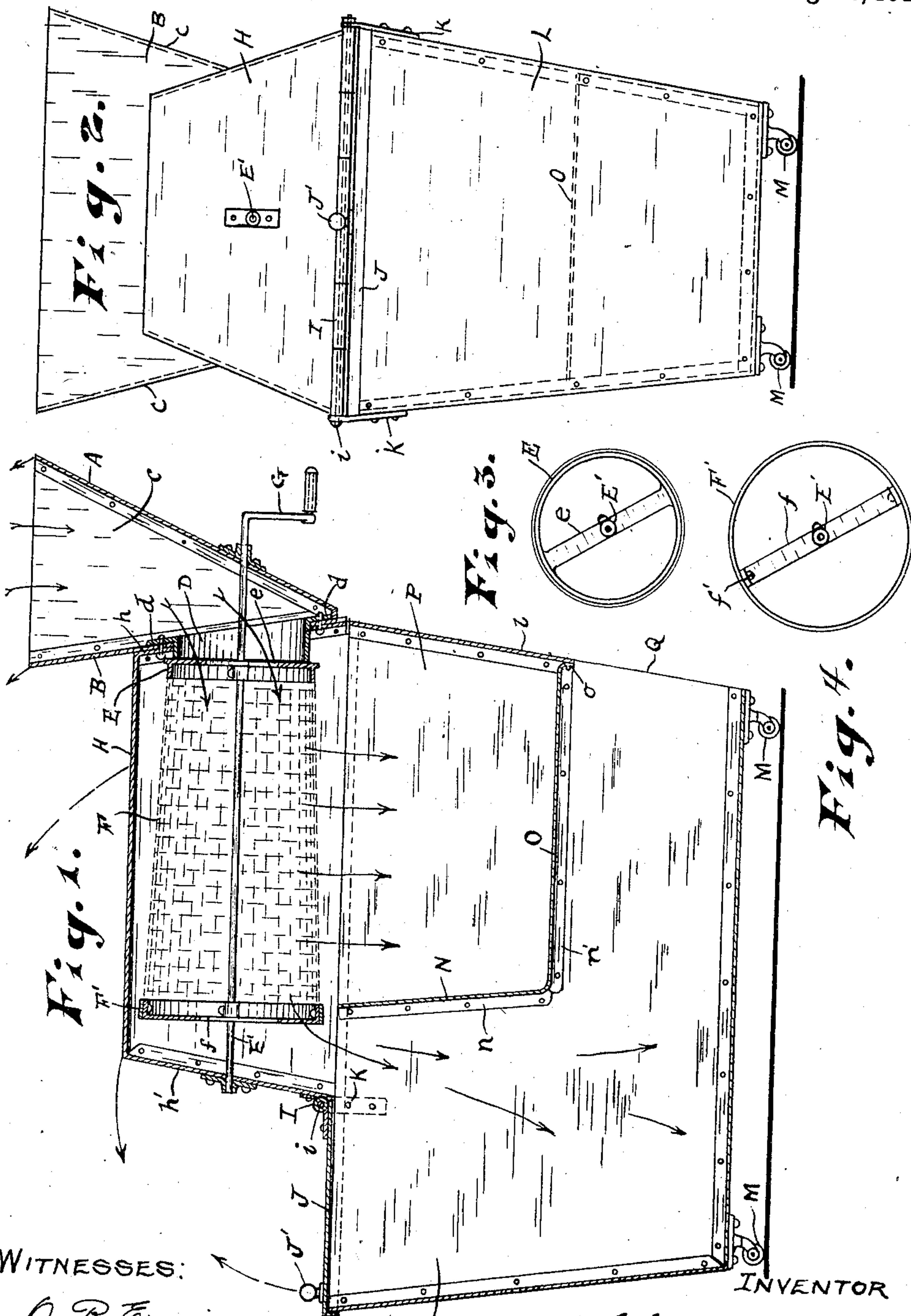
J. W. ORMSBY.

ASH SIFTER.

APPLICATION FILED SEPT. 24, 1908.

967,826.

Patented Aug. 16, 1910.



WITNESSES:

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JOHN W. ORMSBY, OF MILWAUKEE, WISCONSIN.

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Application filed September 24, 1908. Serial No. 454,508.

To all whom it may concern:

Be it known that I, JOHN W. ORMSBY, a citizen of the United States, residing at Milwaukee, county of Milwaukee, and State of Wisconsin, have invented new and useful Improvements in Ash-Sifters, of which the following is a specification.

My invention relates to improvements in ash sifters.

10 The objects of my invention are to provide a form of construction in which like parts of a number of machines may be nested for shipment and readily assembled by the dealer or user. Also to provide a form of
15 construction which will occupy a minimum space and which will be inexpensive, durable and substantially dust proof.

In the following description, reference is had to the accompanying drawings, in
20 which—

Figure 1 is a longitudinal sectional view of an ash sifter embodying my invention. Fig. 2 is a rear elevation of the same. Fig. 3 is a view of the rotary sieve as seen from
25 the front end. Fig. 4 is a view of the same as seen from the rear end.

Like parts are identified by the same reference characters throughout the several views.

30 The hopper is provided with downwardly converging front, rear and end walls, A, B and C, respectively, the rear wall B having an aperture adapted to receive a spout D, which is provided with outwardly turned
35 flanges *d* adapted to engage the inner surface of the wall D, as shown in Fig. 1. The projecting end of the spout D bears against a ring E, which constitutes the end member of a conically tapered rotary screen F, the
40 end of which screen is open to receive material from the hopper C through the spout D, the opening however, being crossed by a bar *e*, which is apertured for the reception of the actuating shaft E'. At the rear or
45 larger end of the screen, the ring F' is provided, this end of the screen being also left open, with the opening spanned by a cross bar *f*, which also provides a journal for the shaft E'. This shaft is actuated by means
50 of an ordinary crank G.

The screen is covered by a housing member H, open at the bottom, and provided with upwardly converging side and end

walls, one of the end walls *h* being adapted to fit the rear wall B of the hopper and being
55 apertured to receive the spout D. The rear wall *h'* is provided with hinges I at its base, the hinge pin *i* comprising a removable rod and the hinge serving to connect the wall *h'* with the lid J and also with up-
60 wardly projecting ears K, supported from the sides of a coal receptacle L.

The side and end walls of the coal receptacle L converge downwardly and the base is preferably provided with rollers M. An L
65 shaped partition is fitted to the interior of the coal receptacle underneath the sieve F, with one wall N extending downwardly and forwardly from below the rear end of the sieve F and the other wall O extending hori-
70 zontally to the front end of the receptacle L, where it is provided with a down-turned flange *o*, which is secured by bolts or rivets to the front wall *l* of the coal receptacle. The margins of the partition, composed of
75 the walls N and O, are preferably turned outwardly to form flanges *n* and *n'* respectively, and which facilitate securing the partition to the side walls of the receptacle L, thus forming an ash receiving chamber P.
80 It will be understood that the side margins of the member N converge downwardly and conform to the side walls of the receptacle L. The front wall *l* of this receptacle is provided with an aperture at Q below the
85 chamber P, through which the coal in the receptacle L may be removed.

In use, the unsifted ashes are placed in the hopper C, from which they pass through the spout D into the rotary screen F, the
90 crank G being meanwhile rotated, causing the ashes to sift through the screen to the chamber P. The coarser material moves by gravity toward the larger end of the screen (the axis of which is preferably hori-
95 zontal), and this material is finally delivered through the open end of the screen at the rear of the partition wall N and drops into the receptacle L, sufficient space being provided between the rear end of the screen
100 and the wall *h'* of the housing to permit the delivery of the unburned coal and clinkers to the receptacle L.

To remove the ashes from the chamber P, the housing H with the screen and hopper
105 may be raised and swung upon the hinge I.

until the shaft E' occupies a substantially vertical position. After the ashes are removed, the parts are restored to normal position with the lower margins of the walls B and h resting upon the front wall of the receptacle L. It will also be observed that the lid J may, if desired, be swung to a vertical position, thus affording access to the receptacle L from the rear. This lid is provided with a knob J', which also supports the housing H, when the latter is in its raised position.

In shipping these ash sifters, the various parts are separated from each other and nested with the corresponding parts of like machines, as follows: The hoppers being tapered downwardly are adapted to fit one within another, when unconnected with the rest of the machine. The same is true of the housing H and of the receptacle L. The partition, composed of the walls N and O, can obviously be assembled or nested with other like partitions. The cross bar f being connected by removable bolts f' with the ring F', it is obvious that this bar can readily be removed, whereupon by removing the shaft E', the screen may be nested with other screens of like size and character. It is not material whether the spout D is tapered or not as it is sufficiently short to be placed in the bottom of the receptacle L with the cross bars f, the connecting bolts, etc. It will be observed that with the described construction, these ash sifters may be boxed and shipped in quantities as second class freight, occupying but a small amount of space in a car, whereas, if assembled preparatory to such shipment, a much greater expense in transportation would be incurred. It will also be observed that since each part of the machine is complete in itself, a dealer or user, however inexperienced, will find no difficulty in assembling the machine.

The several parts of the machine are also so proportioned that a half dozen or more machines may be nested, not only by placing like parts within each other, but by placing the hoppers, housings, screens, and smaller parts within the receptacle L.

Having thus described my invention what

I claim as new and desire to secure by Letters Patent is—

1. An ash sifter comprising a hopper provided with downwardly tapering sides and ends and having an opening in one side wall, a rotary sieve conically tapered in the direction of the hopper, a tubular connecting member leading from the hopper opening to said sieve, a housing for the sieve having upwardly tapering side and end walls, a receiving receptacle supporting said housing and provided with downwardly tapering side and end walls, a removable partition in said receiving receptacle and a crank shaft for said sieve journaled in the outer walls of the hopper and housing; said hopper being bolted to the other end wall of the housing and said housing and hopper being adapted for nesting with like parts of other machines in the receiving receptacle, together with a set of partitions and nested sieves.

2. An ash sifter comprising a hopper provided with downwardly tapering sides and ends and having an opening in one side wall, a rotary sieve conically tapered in the direction of the hopper, a tubular connecting member leading from the hopper opening to said sieve, a housing for the sieve having upwardly tapering side and end walls, a receiving receptacle supporting said housing and provided with downwardly tapering side and end walls, a removable partition in said receiving receptacle and a crank shaft for said sieve journaled in the outer walls of the hopper and housing; said hopper being bolted to the other end wall of the housing and said housing and hopper being of such size as to facilitate nesting with like parts of other machines in the receiving receptacle, together with a set of nested sieves, each of said sieves being provided with a removable bearing bar for the crank shaft at its larger end.

In testimony whereof I affix my signature in the presence of two witnesses.

JOHN W. ORMSBY.

Witnesses:

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