(No Model.)

N. S. BIRD.

ASH SIFTER.

No. 451,257. Patented Apr. 28, 1891.

Fig. 1

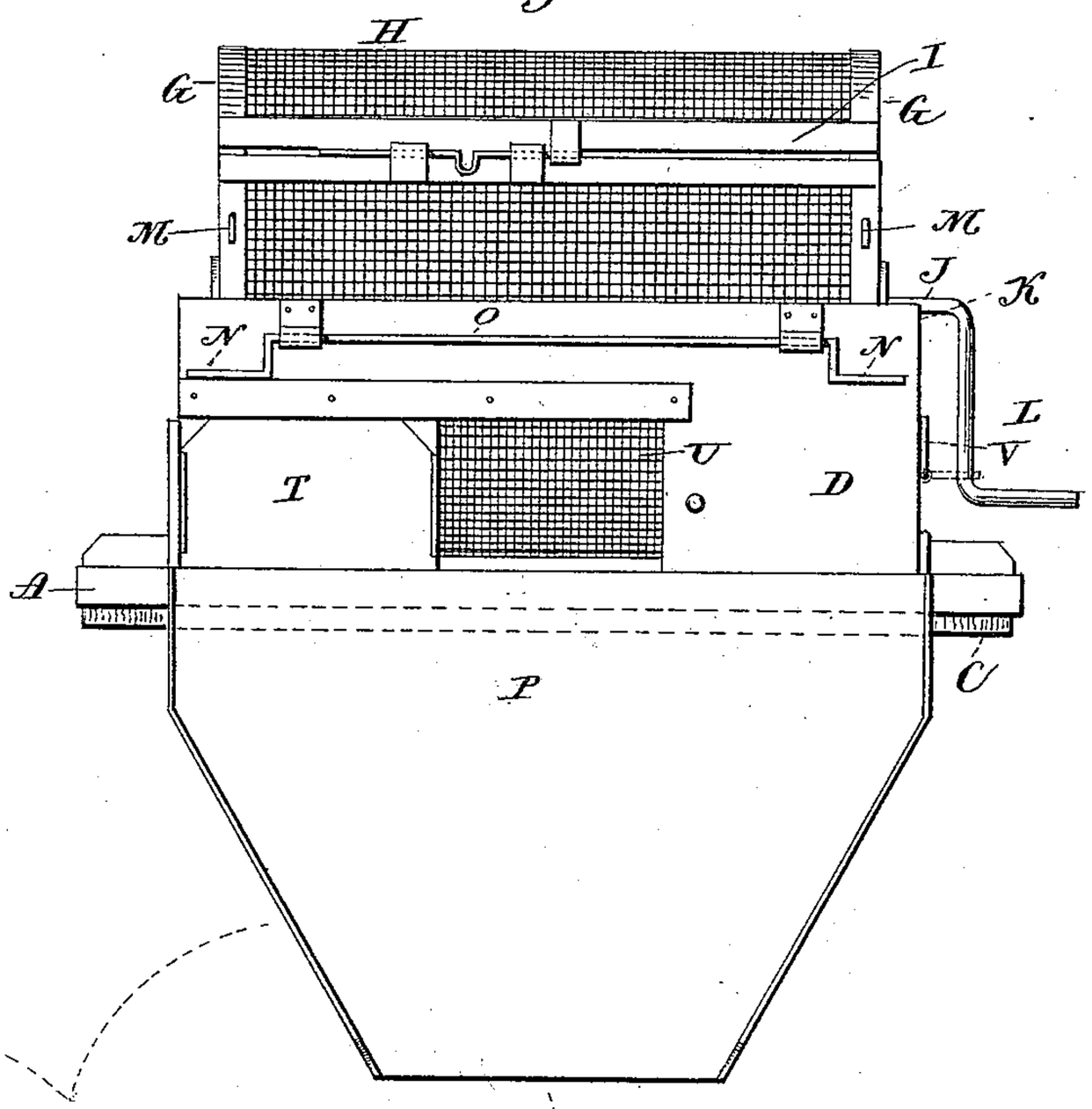
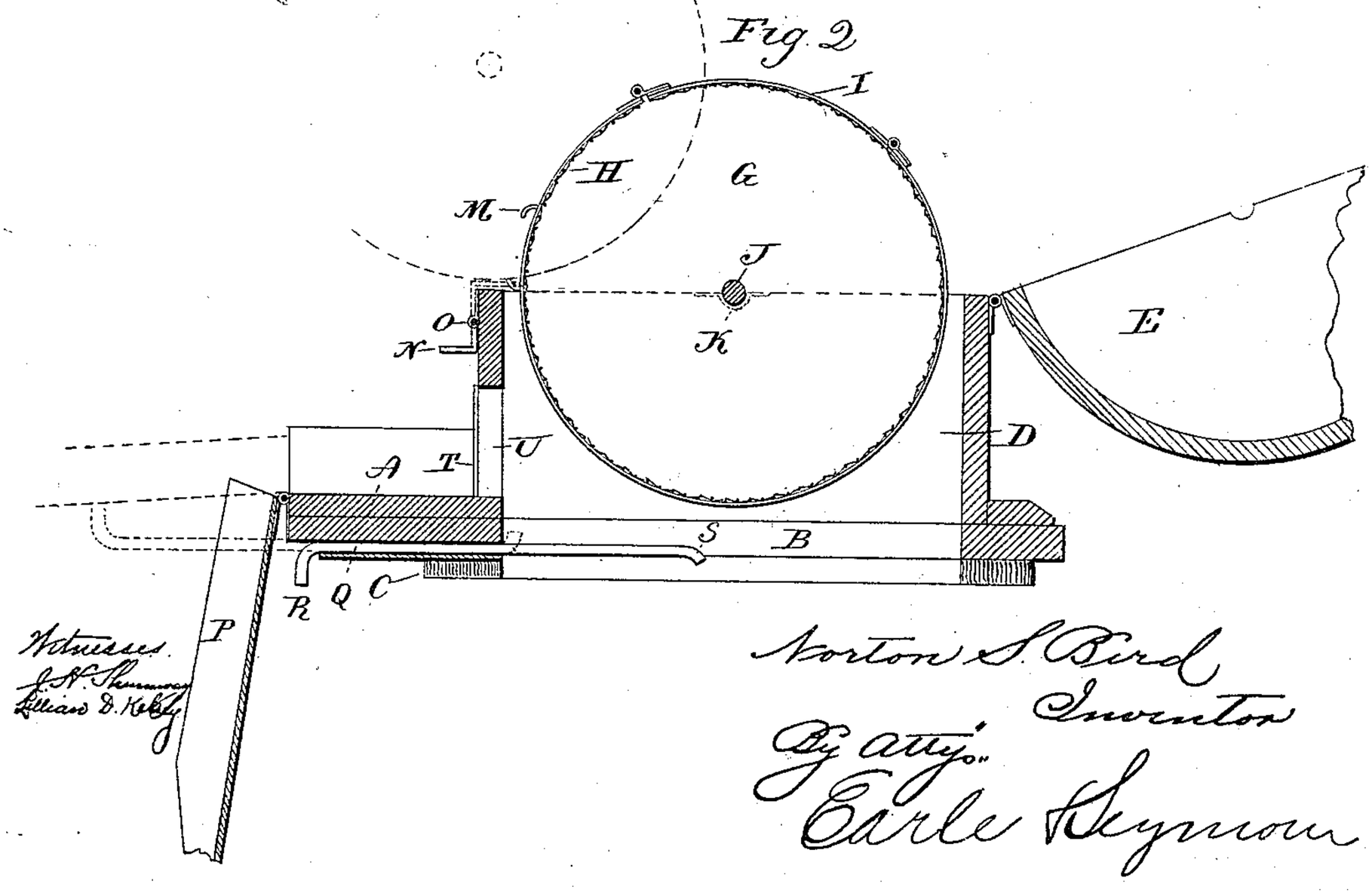


Fig. 2



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ASH-SIFTER.

SPECIFICATION forming part of Letters Patent No. 451,257, dated April 28, 1891.

Application filed September 1, 1890. Serial No. 363,589. (No model.)

To all whom it may concern:

Be it known that I, NORTON S. BIRD, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Ash-Sifters; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a view in front elevation of my improved device with the cover open; Fig. 2, a view thereof in central longitudinal section, the emptying position of the screening-cylinder being shown by broken lines.

My invention relates to an improvement in ash-sifters, the object being to produce a simple, cheap, convenient, and effective device.

With these ends in view my invention consists in certain details of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

As herein shown, my device has a square base A, having a large central opening B, inclosed by a circular band C, secured to the under face of the said base and preferably composed of a fabric having a deep pile, so that when the device is placed upon a barrel the chine thereof will sink into the fabric and make a dust-proof joint between the device and barrel. A box D, secured to the upper face of the said base and surrounding the opening therein, is provided with a cover E, hinged to its rear edge and arched to clear the screening-cylinder, which is composed of two heads G G, a body of wire-netting H, a peripheral door I, and a shaft J, the latter extending centrally through the heads and forming journals which rest in bearings K K, secured to the ends of the box, one end of the shaft being extended to form the handle L. The said heads G G are also provided in their peripheries with two couplers, here consisting of hooks M M, located opposite each other in front of the said door I and turned forward. These hooks are arranged to engage, respectively, with the bent ends N N of a horizontal tilter composed of a bar O, pivoted to the front of the box. Normally this bar is arranged as shown in Fig. 1 of the drawings, in which its bent ends stand in front of the box; but when the bar is to be used it is turned so that the said ends will extend rearwardly over the forward edge of the box and into the paths of the hooks carried by the screening-cylinder, whereby the same may be lifted and rotated on the said ends of the bar as centers of rotation and the door of the cylinder brought over the forward edge of the base for dumping the screened coals thereupon preparatory to sorting them. This mode of tilting the cylinder enables the device to be very compactly made and operated in a small space. The said edge of the base is provided with a hinged sorting-apron P, having its edges upturned and narrowed at its outer end to form a chute. This pan is supported in its operative position by means of a horizontal sliding support Q, formed of a rod mounted in the lower face of the base A, and having its outer end bent to form a supporting-arm R, which is turned up when the support is in use, as shown by Fig. 2 of the drawings, and its inner end bent to form a retaining-finger S, which prevents the support from being pulled out of its bearing in the base. A sliding door T normally closes a discharge-opening U, formed in the forward side piece of the box and having its lower edge in the same plane with the forward edge of the base. If desired, the door may be hung from the tilting-bar and swing thereon as on a pivot.

A holding-arm V, pivoted to the end piece of the box next to the handle of the cylinder, is bent inwardly at its outer end to receive the handle with which it is engaged, so as to hold the cylinder against rotation, and with its door uppermost to permit the unscreened ashes to be poured into it.

My device will be mounted upon a barrel, and ordinarily its cover will be closed and its sorting-pan let down out of the way. To use it its cover is raised and its cylinder locked against rotation with its door uppermost. The ashes are now poured into the cylinder, the same is unlocked by throwing back the holding-arm, and the cover shut down. The ashes are now screened by rotating the cylinder, and after this has been done the cover is opened again and the tilting-bar thrown up into its operative position. The cylinder is now rotated forward and its hooks engaged with the ends of the bar and the cylinder turned on

the same to tilt it and dump the coals remaining in it over the forward edge of the base and over the sorting-pan, which is now supported in its elevated position. The screened ashes are now sorted and the worthless coals pushed through the discharge-opening, from which they fall into the barrel, while the good coals are finally dumped into a hod by simply pushing in the sliding support of the chute. While the screening of the ashes is going on, no dust can escape from the device or barrel and the subsequent operations of sorting and disposing of the good and worthless coals are easily and rapidly carried out.

I would have it understood that I do not limit myself to the exact construction and arrangement of parts shown and described, but hold myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of my invention.

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

1. In an ash-sifter, the combination, with a box, of a screening-cylinder mounted therein, a movable tilter adapted to be swung into the path of the cylinder, and couplers attached to the periphery of the cylinder to engage with the tilter, on which the cylinder may then be turned as a center, substantially as described.

2. In an ash-sifter, the combination, with a box, of a screening-cylinder mounted therein, a rotatable tilting-bar pivoted to the box and having its ends bent so that when it is rotated they will be carried over the edge of the box and into the path of the cylinder, and couplers attached to the periphery of the cylinder to engage with the tilter, on which the cylinder may then be turned as a center, substantially as described.

3. In an ash-sifter, the combination, with a box, of a screening-cylinder mounted therein, two hooks respectively secured to the edges of the heads of the cylinder, and a tilting-bar rotatably secured to the box and having its ends bent so as to be carried into the paths of the hooks when it is rotated, substantially as described.

4. In an ash-sifter, the combination, with a base having an opening in it, of a box secured to the said base, a screening-cylinder mounted in the box, a movable tilter attached to the box and adapted to be swung into the path of the cylinder, couplers attached to the periphery of the cylinder and constructed to engage with the tilter, on which the cylinder may then be swung as a center, a pivotal sorting-apron secured to the forward edge of the base, a door covering an opening formed in the side of the box, and a horizontal sliding support mounted in the base and located under the apron, which it sustains when the same is in its operative position, substantially as set forth.

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Witnesses:
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