(No Model.)

T. J. CLEPPER.

ASH SIFTER.

No. 544,662. Patented Aug. 20, 1895.

Fig. 1.

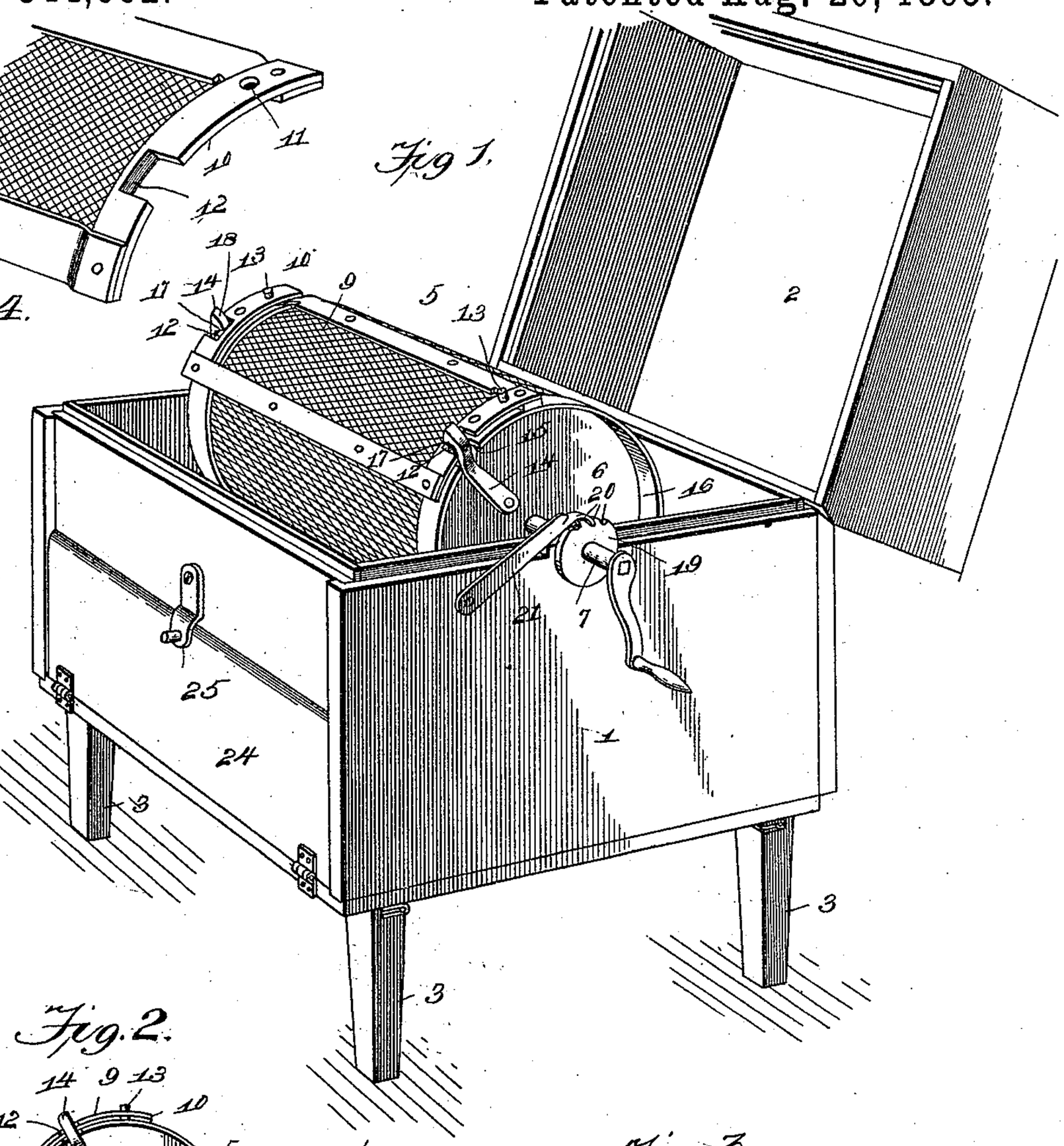


Fig. 4.

Fig. 2.

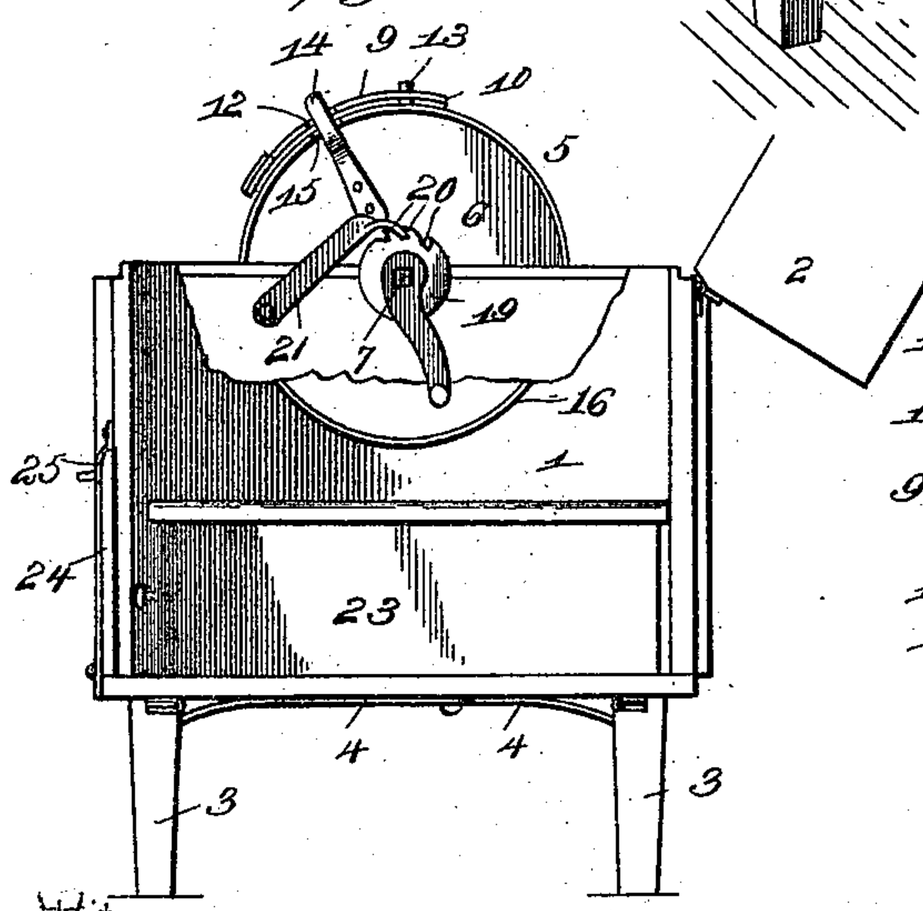
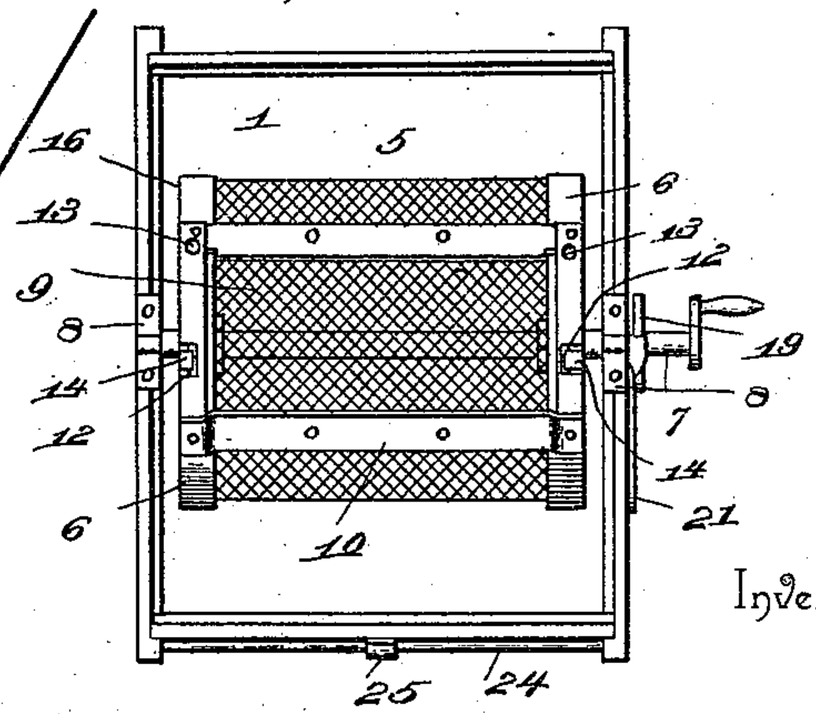


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

THOMAS JEFFERSON CLEPPER, OF COLUMBIA, PENNSYLVANIA.

ASH-SIFTER.

SPECIFICATION forming part of Letters Patent No. 544,662, dated August 20, 1895.

Application filed March 22, 1895. Serial No. 542,812. (No model.)

To all whom it may concern:

Be it known that I, THOMAS JEFFERSON CLEPPER, a citizen of the United States, residing at Columbia, in the county of Lancaster and State of Pennsylvania, have invented a new and useful Ash-Sifter, of which the following is a specification.

This invention relates to an improvement in ash-sifters, and has reference particularly to that class of ash sifters in which a rotary cylindrical sieve is employed, having a removable section or door for permitting the introduction and removal of the coals and cinders and mounted in a two-part case or box having a hinged top for adapting said cylinder to be removed, and with a removable tray or pan for catching the dust, coal, &c.

The object of the invention is to provide a simple, compact, and durable construction of ash-sifter having a rotary cylindrical sieve or screen and in providing said cylindrical screen with a removable section or door of novel construction, to simplify and improve the construction of said door and the means by which the same is held in position; also, to provide said cylindrical sieve or screen with means whereby it may be held against rotation in such position as to enable the operator to remove and replace the door thereof.

To this end the invention consists in certain novel features and details of construction and arrangement of parts, as hereinafter fully described, illustrated in the drawings, and pointed out in the claim.

In the accompanying drawings, Figure 1 is a perspective view of an ash-sifter constructed in accordance with my improvements. Fig. 2 is a side elevation of the same with the adjacent side of the case or box partly broken away to show the interior arrangement. Fig. 3 is plan view of the same. Fig. 4 is a detail perspective view of the removable section or door of the cylindrical sieve or screen.

Similar numerals of reference indicate corresponding parts in the several figures of the drawings.

Referring to the drawings, the inclosing case or box is made in two parts or sections, a lower rectangular section 1 and a corresponding rectangular upper part or section 2 hinged thereto at the rear. The case or box as a whole is supported upon feet or legs 3, preferably made of iron and formed in two oppositely-disposed pairs, which are hinged to the bottom of the box and adapted to be folded inward for storage, transportation, &c. Suitable pivoted braces 4, secured to the under side of the box and adapted to bear at their ends against said feet or legs, hold the latter firmly in position when in operative position, as shown.

5 designates a rotary cylindrical sieve or screen, comprising a pair of flanged end disks 6, mounted upon a horizontal shaft or axle 7, mounted in suitable bearings 8 at either end in the top side edges of the lower part 1 of the case or box, said bearings being left open at the top or made U-shaped to permit the removal of the screen or sieve when desired. A screen of woven wire or perforate sheet metal extends nearly around the end disks 6, extending transversely from one to the other, a sufficient gap or space being left between the ends of the screen to form an opening for the introduction and removal of the ashes. A removable section or door 9, adapted to cover said gap or space, consists of a stout rectangular metal frame 10 covered with wire netting or perforate sheet metal, as shown, and provided at either end with corresponding perforations 11, and also provided in either end bar with notches or open slots 12, the purpose of which will appear. The removable section or door 9 is curved or concavo-convex in cross-section, adapting it to fit snugly over the opening in the cylindrical screen. An oppositely-disposed pair of radially-projecting pins 13 on the cylindrical sieve end disks, are adapted to engage the perforations 11 in the rectangular frame of the door 9, their purpose being to guide and direct said door to its proper position and to relieve the spring-holding catches from strain.

The spring-catches indicated at 14 are secured to the opposite outer faces of the end disks 6 and extend at their outer ends through notches 15 in the outwardly-projecting flanges 16 of said end disks, and also through the notches or open slots 12 in the removable section or door 9, where they are provided with inwardly-projecting catch-lips 17, for engaging the door-frame, and with inclined faces 18, for facilitating the application of said door to the cylinder. By means of the construc-

tion just described the removable section or door is firmly held in place and end or lateral movement thereof prevented.

Upon one end, outside of the case or box, the shaft 7 is provided with a disk 19, having one or more depressions or notches 20 for the reception of the free end of a pawl 21, pivoted to the case. Outside thereof said shaft is provided with an operating-crank, by means of which the screen or sieve is located. The notches or depressions 20 are located at such a point in the disk that when the pawl 21 is in engagement therewith the door 9 of the cylindrical screen or sieve will be uppermost.

Beneath the cylindrical screen is located a tray or pan 23 for receiving the dust, coals, &c., and removable through an opening in the front end of the box or inclosing case, said opening being closed by a hinged door 24, held in place by means of a catch or button 25. This door 24 and also the hinged top 2 of the inclosing-case are formed in such manner as to make a close and dust-tight joint with the part 1 of said case, so that when closed the dust cannot possibly escape therefrom.

In operation, after the ashes have been put in the cylindrical sieve or screen and the top or lid 9 fastened down, as above described, the hinged top of the inclosing-case is then closed and the cylinder then turned slowly until the dust is completely separated from the coals and cinders, after which the dust is allowed to settle. The pan or tray is then removed and the dust or refuse thrown out. The pan is then returned to its place, the door of the cylinder removed, and the coals and cinders dumped into the pan or tray and removed when wanted for use. By providing the disk 19, notched as described, and the pivoted pawl engaging said disk, it will be apparent that the removable section or door of the cylinder may be brought uppermost without the necessity of opening the case or box.

The ash-sifter above described is easy of operation, is absolutely dust-proof, there is nothing to get out of order, and will be found thoroughly efficient in practice. By reason of the simplicity of its construction it may be manufactured at slight cost and will effect a great saving in fuel.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

In an ash sifter, a rotary cylindrical screen or sieve, the oppositely disposed pins or guides at either end thereof, and a pair of spring catches also arranged at either end of the cylinder and secured thereto, in combination with a removable section or door, the oppositely disposed perforations therein for engaging said pins or guides, and the end notches for the reception of said spring catches, all arranged substantially as and for the purpose specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

THOMAS JEFFERSON CLEPPER.

Witnesses:
GEO. D. MILLER,
F. P. D. MILLER.