

H. S. BREWINGTON.
ASH SIFTER.
APPLICATION FILED DEC. 9, 1907.

900,826.

Patented Oct. 13, 1908.

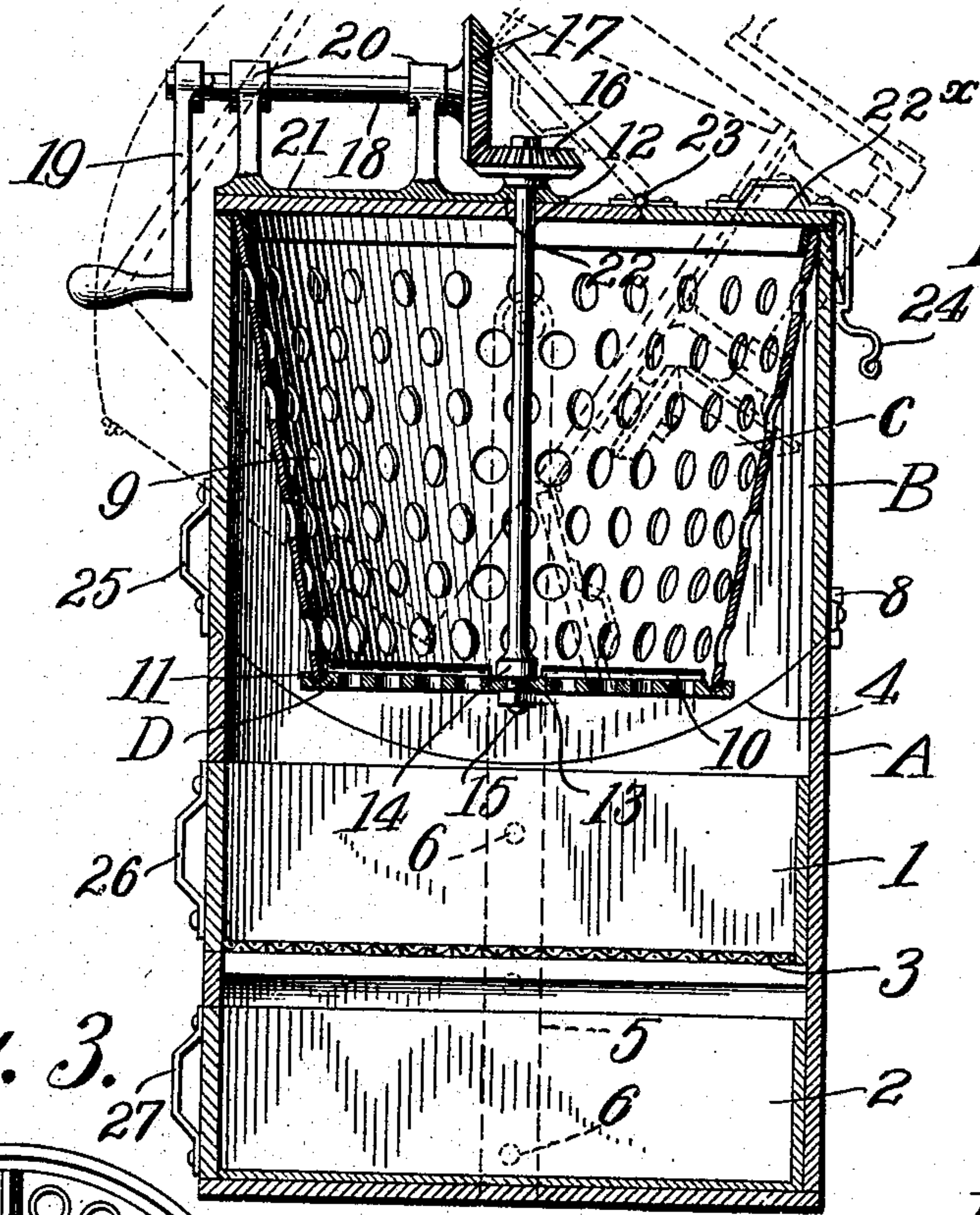


Fig. 1.

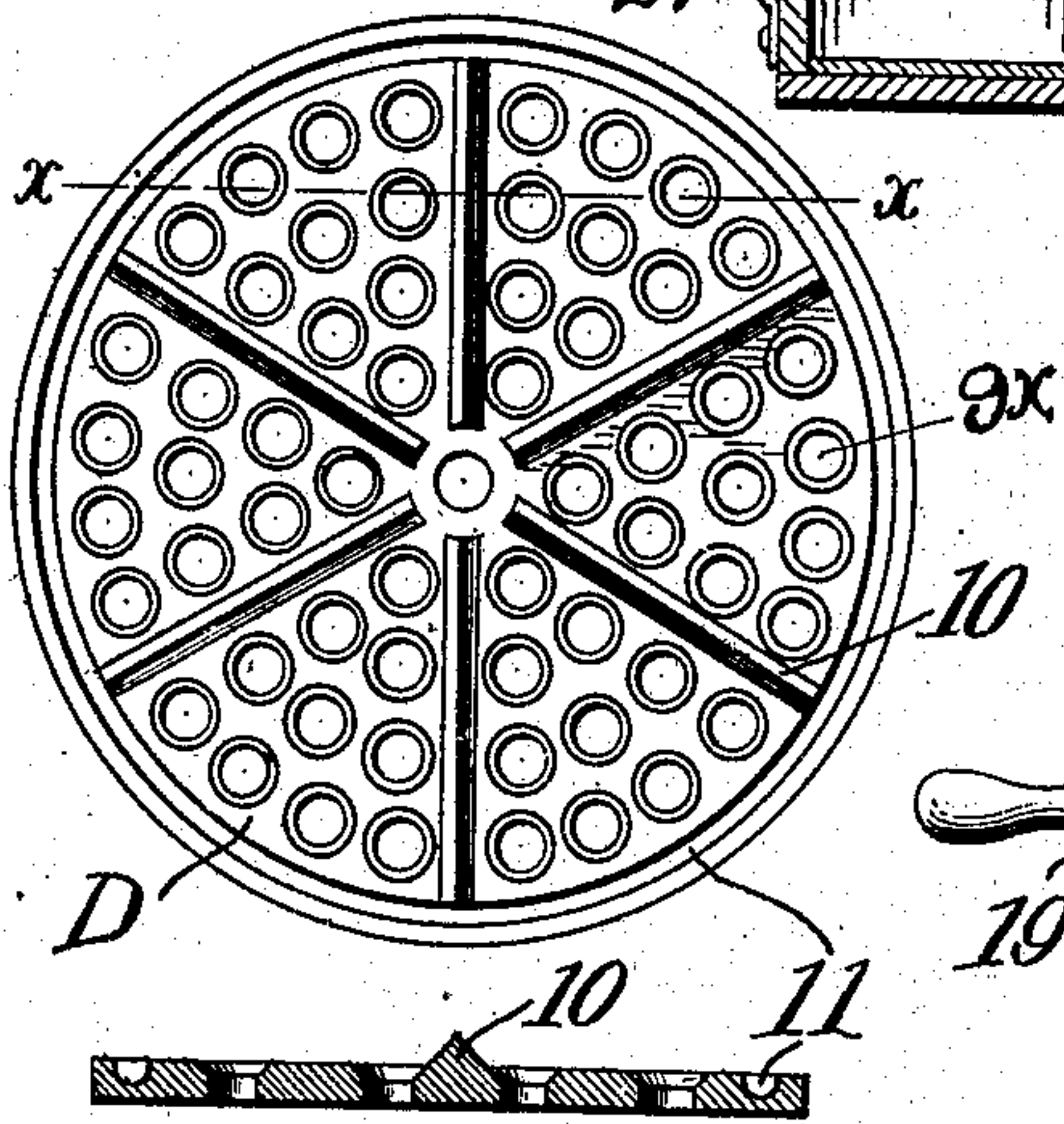


Fig. 4.

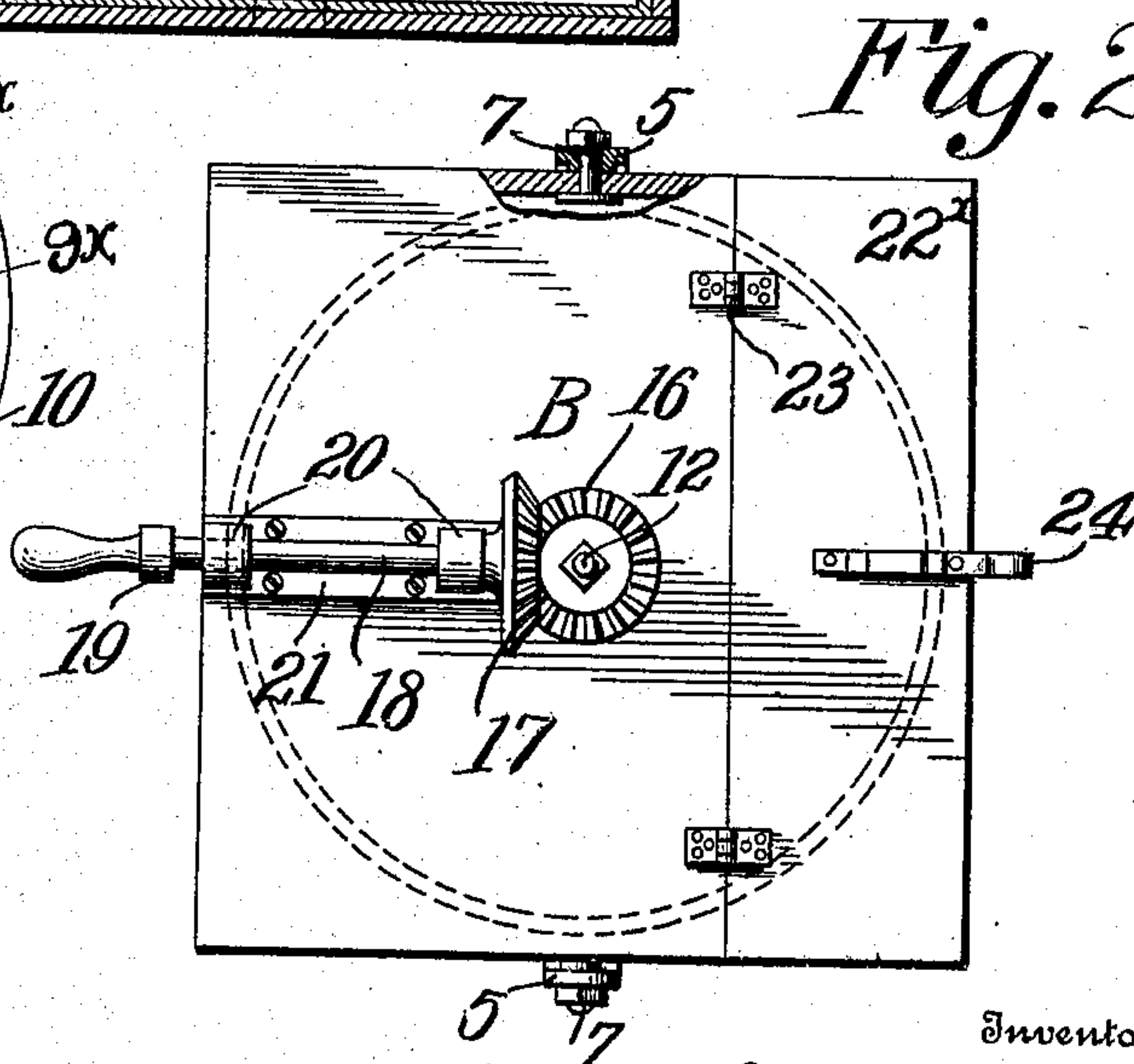


Fig. 2.

Witnesses
Frank B. Woodew
Robert B. Cromer

Inventor
Henry J. Brewington,
By E. Walton Brewington
his Attorney

UNITED STATES PATENT OFFICE.

HENRY S. BREWINGTON, OF BALTIMORE, MARYLAND.

ASH-SIFTER.

No. 900,826.

Specification of Letters Patent. Patented Oct. 13, 1908.

Application filed December 9, 1907. Serial No. 405,634.

To all whom it may concern:

Be it known that I, HENRY S. BREWINGTON, a citizen of the United States, residing at Baltimore city, State of Maryland, have invented certain new and useful Improvements in Ash-Sifters, of which the following is a specification.

My invention relates to an improvement in ash sifters, the object being to effectually separate from waste ashes the cinders which are available for consumption as fuel.

My invention has for its object to provide an ash sifter of a character to be hereinafter described in which the mechanism and the dust and ash receptacles are so arranged and disposed that the sifting of the ashes can be accomplished in a very effective manner, and the receptacles may be readily removed and emptied of their contents.

My invention is more particularly an improvement upon the sifter heretofore invented by me forming the subject of Patent No. 403,087, in that I have provided the perforated circular plate forming the bottom of the pot with a series of agitator blades and the walls of the pot are perforated as will be more fully described in the details of construction and arrangement of parts hereinafter described and shown in the accompanying drawings forming a part hereof, in which,

Figure 1, is a sectional elevation; Fig. 2, is a plan view with a part broken away to show the hinged connection; Fig. 3, is a plan view of the revoluble bottom, showing the agitator blades, and Fig. 4, is a section on the line $x-x$ of Fig. 3.

A, is a casing made of wood, but which may be of any suitable material, such as sheet iron or other sheet metal. In this case A are two drawers, 1 and 2. The bottom of the drawer 2 is made close to hold the ashes when sifted down from the drawer 1, which has a wire sieve or perforated bottom 3, to allow the ashes to pass through and to retain the cinders of coal in the drawer. The top of the casing A is formed on a hollow curve 4, as is shown in Fig. 1. Above the case A is another case B, made of the same material and conformable in dimensions horizontally to case A, and about the same vertically. The bottom of case B is made convex to conform and fit in the concave top 4 of the lower case A.

On each side of the case A is a standard 5, which is secured to it by any ordinary

means at 6—6, and projects upward to near the top of the case B. The upper case B is pivotally secured between the standards 5, by means of the pivots 7—7, by which means the top case B is swung, the pivots forming the center line of the curve of the bottom of the case B, so that it can be swung upwardly as indicated by the dotted lines in Fig. 1; 8 is an ordinary latch or button by which means the case B is vertically secured to case A, and to prevent the case B from swinging between the uprights 5.

Within the case B is secured a deep cylindrical pot C, made of metal, either sheet or cast, the walls of which are perforated at 9, and provided with a revoluble bottom D, which bottom is a circular plate perforated as indicated at 9^x, made preferably of cast metal and having cast thereon a series of agitator blades 10, cast in the said bottom plate D near the outer edge thereof is a circumferential groove 11, into which is revolvably secured the pot C by the means of a vertical shaft 12, which extends through the center of the bottom D and is secured thereto by ordinary means such as the end of the shaft being threaded at 13, and a shoulder 14 provided above the threaded portion, and a nut 15 screwed on the threaded portion, thereby securing the bottom plate D between the shoulder 14 and the nut 15. This shaft 12 passes through the top of the case B and has on its upper end a beveled pinion wheel 16, which meshes with a vertical beveled gear wheel 17, on a horizontal shaft 18, having on its outer end a crank handle 19. This shaft is sustained in bearings 20—20 on a frame 21, secured to the top of the case B. The upper end of the vertical shaft 12 is supported in a projecting extension or boss 22 of the frame 21.

A lid 22^x, forming a part of the top of the case B is hinged to the top at 23, so that it can be opened to pour the cinders into the pot C, and it also serves as the opening for the discharge of the cleaned cinders. 24 is a latch for securing the lid shut; 25 is a handle secured to the case B for the purpose of swinging or turning the case; 26 and 27 are similar handles secured to the drawers 1 and 2 respectively, by reason of which their insertion and withdrawal in and from the case A is facilitated.

The sifter is operated as follows: The cinders with the ashes are thrown into the pot C, when the lid 22 is raised, as indicated

in dotted lines as shown in Fig. 1. The lid is then let down and secured shut by means of the latch 24. The handle 25 is turned a few times which causes the perforated bottom plate D to rotate and the rotary motion of the plate carrying thereon the agitator blades 10 tumbles the cinders and causes the ashes and other fine matter to sift through the perforated side walls of the pot C and the perforated bottom plate D into the drawer 1, where it will fall through the wire screen or perforated bottom 3 into the close or ash drawer 2.

By means of the handle 25, on the side of the top case B, the case may be lifted up until the pot C is turned upward, the contents thereof will be discharged into the drawer 1.

It has been found from actual demonstration that the perforations in the walls of the pot C, and the providing of agitator blades on the revoluble bottom plate D, are absolutely essential to insure the effectiveness in operation necessary to the commercial success and sale of the device.

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

1. The combination in an ash sifter of the character described, comprising a casing, a circumferential perforated pot secured therein, a revoluble perforated bottom plate secured to the said pot, a plurality of agitator blades secured on the said bottom plate, means for rotating the said bottom plate substantially as described.

2. The combination of an ash sifter of the character described comprising a circumferential perforated pot, a revoluble perforated bottom plate secured thereto, a plurality of agitator blades secured on the said bottom plate, means for rotating the said bottom plate, substantially as described.

3. The combination of an ash sifter of the character described, comprising a casing, a circumferential pot secured therein, a revoluble perforated bottom plate secured within the said pot, a plurality of agitator blades provided on the said bottom plate and within the said pot, a vertical shaft secured to the said bottom plate, means for rotating the said shaft, substantially as described.

4. The combination in an ash sifter of the character described, comprising a casing, a circumferential perforated pot secured therein, a revoluble perforated bottom plate secured on the said pot, a plurality of agitator blades provided on the said bottom plate, a vertical shaft, means for rotating the said vertical shaft and the said bottom plate, substantially as described.

5. The combination in an ash sifter of the character described, comprising an upper and lower case, standards secured to the lower case with the upper case pivotally se-

cured therein-between, a cylindrical pot secured in the upper case, a vertical shaft, a revoluble perforated plate forming the bottom of the pot carried on the lower end of the said shaft, agitator blades provided on the said bottom plate, a beveled pinion wheel carried on the upper end of the said vertical shaft, a cover provided with a hinged lid secured on the top of the upper case, a metal frame, a horizontal shaft carried by the said frame, a vertical beveled wheel carried on one end of the said horizontal shaft, and intermeshed with the said beveled pinion wheel, carried on the upper end of the said vertical shaft, a handle provided on the free end of the horizontal shaft by which means the said perforated bottom plate is made to rotate and the said agitator blades made to stir the contents within the said cylindrical pot, substantially as described.

6. The combination in an ash sifter of the character described, comprising an upper and lower case, standards secured to the lower case with the upper case pivotally secured therein-between, a perforated cylindrical pot secured in the upper case, a vertical shaft, a revoluble perforated plate forming the bottom of the said pot provided with a circumferential groove therein into which the said pot is revolubly secured, carried on the lower end of the said shaft, agitator blades provided on the said bottom plate, a beveled pinion wheel carried on the upper end of the said shaft, a cover provided with a lid hinged thereto, secured on the top of the upper case, a metal frame provided with an extension thereon for supporting the said vertical shaft secured on the said cover, a horizontal shaft carried by the said frame, a vertical beveled wheel carried on one end of the said horizontal shaft and intermeshed with the said beveled pinion wheel carried on the upper end of the said vertical shaft, a handle provided on the free end of the horizontal shaft by which means the said perforated bottom plate is made to rotate, substantially as described.

7. The combination in an ash sifter of the character described, comprising an upper and lower case, upper and lower drawers provided in the lower case, a wire screen or perforated bottom provided in the said upper drawer, standards secured to the said lower case with the upper case pivotally secured there between, a perforated cylindrical pot secured in the upper case, a vertical shaft, a revoluble perforated plate forming the bottom of the said pot provided with a circumferential groove therein into which the said pot is revolubly secured, carried on the lower end of the said shaft, agitator blades provided on the said revoluble perforated plate, a beveled pinion wheel carried on the upper end of the said shaft, a cover provided with a lid hinged thereto se-

cured on the top of the upper case, a metal
frame provided with an extension thereon
for supporting the said vertical shaft secured
on the said cover, a horizontal shaft carried
5 by the said frame, a vertical beveled wheel
carried on one end of the said horizontal
shaft and intermeshed with the said beveled
pinion wheel carried on the upper end of
the said vertical shaft, a handle provided on
10 the free end of the said horizontal shaft by
which means the said perforated bottom

plate is made to rotate and the said agitator
blades made to stir the contents within the
said cylindrical pot, substantially as de-
scribed.

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

15

HENRY S. BREWINGTON.

Witnesses:

MARY M. MAGRAW,

KATHERINE M. MARMION.