

G. M. HASEN.  
BAG CLEANING MACHINE.  
APPLICATION FILED MAR. 13, 1908.

899,397.

Patented Sept. 22, 1908.

2 SHEETS—SHEET 1.

Fig. 1.

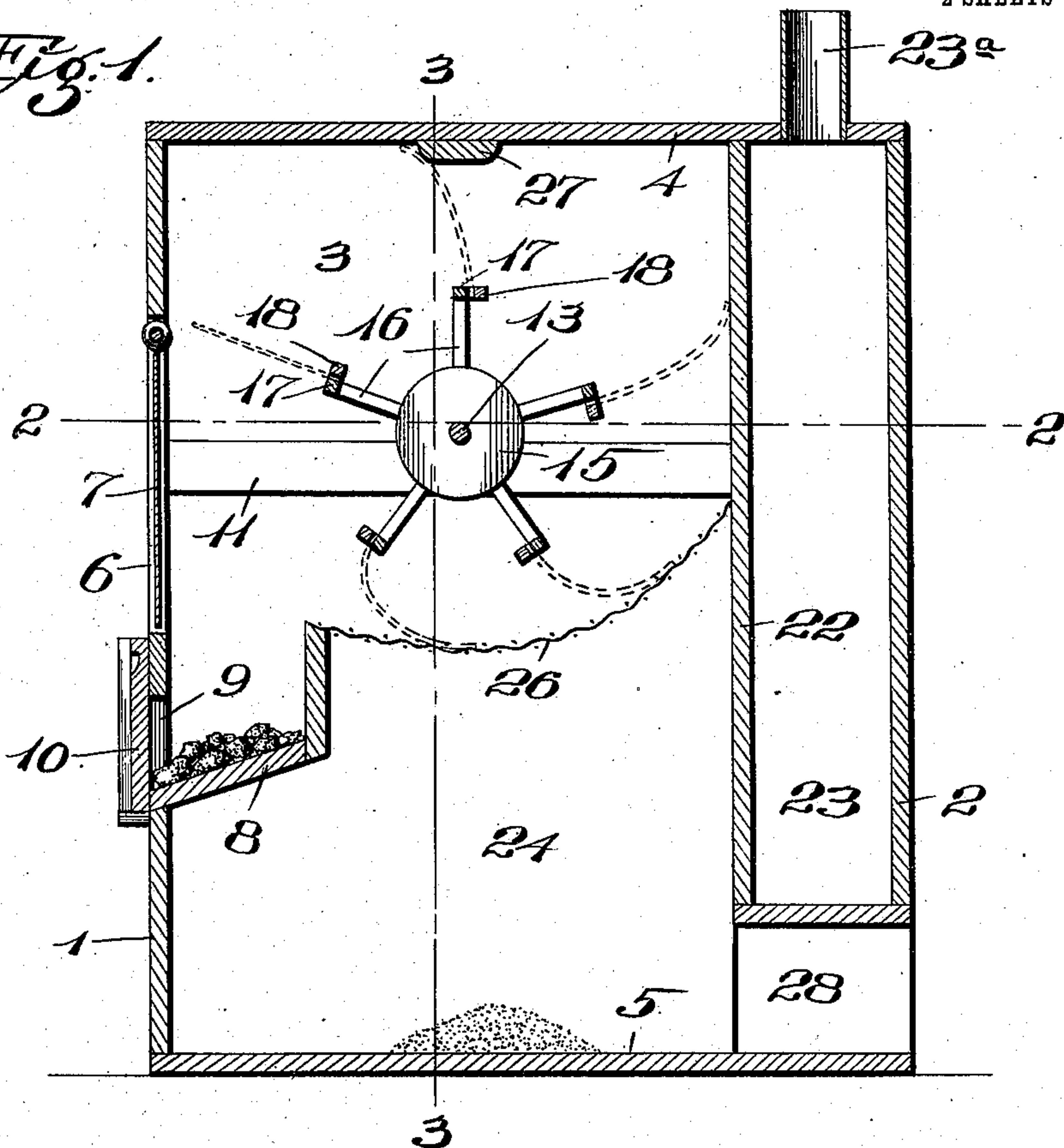
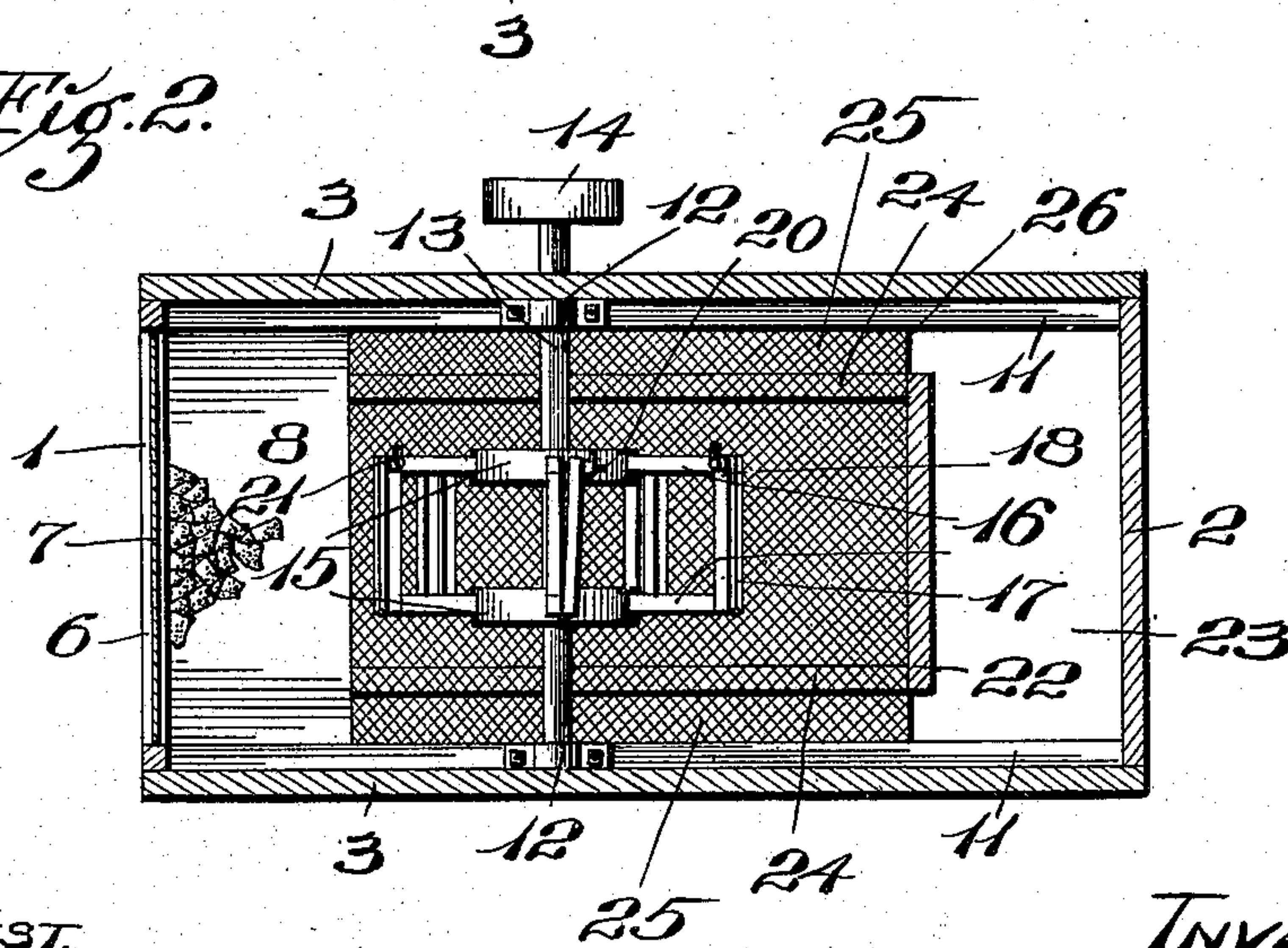


Fig. 2.



ATTEST.

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2 SHEETS—SHEET 2.

Fig. 3.

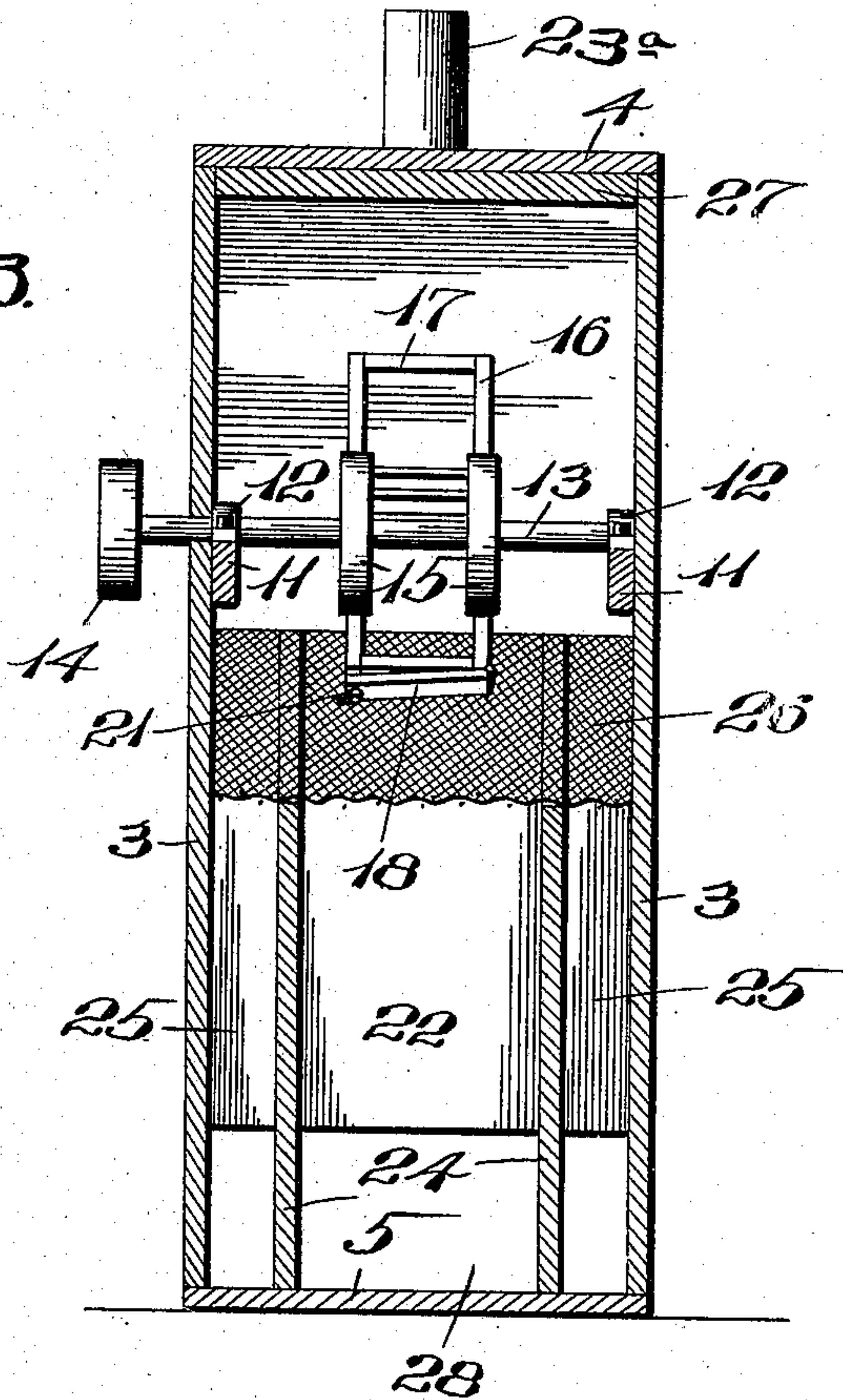
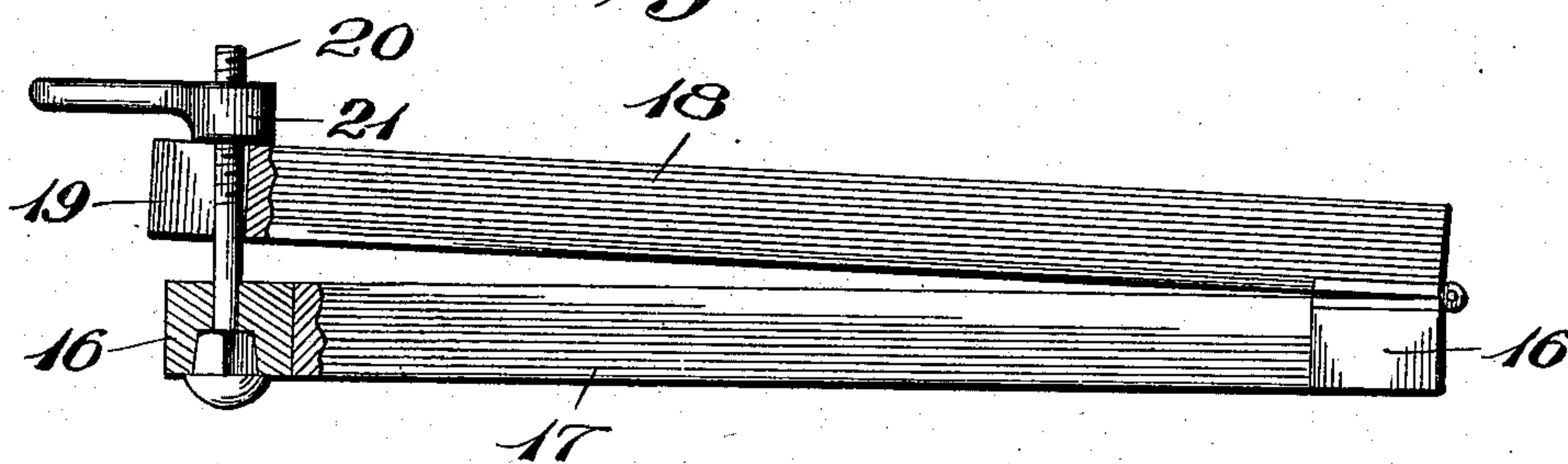


Fig. 4.



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# UNITED STATES PATENT OFFICE.

GEORGE M. HASEN, OF ST. LOUIS, MISSOURI.

## BAG-CLEANING MACHINE.

No. 899,397.

Specification of Letters Patent.

Patented Sept. 22, 1908.

Application filed March 13, 1908. Serial No. 420,959.

*To all whom it may concern:*

Be it known that I, GEORGE M. HASEN, a citizen of the United States, and resident of St. Louis, Missouri, have invented certain new and useful Improvements in Bag-Cleaning Machines, of which the following is a specification containing a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to a bag cleaning machine, the object of my invention being to construct a simple, inexpensive and easily operated machine, wherein bags may be quickly cleaned and put in condition for re-use.

To the above purposes, my invention consists in certain novel features of construction and arrangement of parts, which will be hereinafter more fully described, pointed out in the claims, and illustrated in the accompanying drawings, in which:

Figure 1 is a vertical section taken through the center of a bag cleaning machine of my improved construction; Fig. 2 is a horizontal section taken approximately on the line 2—2 of Fig. 1; Fig. 3 is a vertical section taken approximately on the line 3—3 of Fig. 1; and Fig. 4 is an enlarged detail view of one of the clamps rotated on the rotary member of the cleaning machine, which clamps the ends of the bags.

In the construction of my improved bag cleaning machine I make use of a large rectangular housing, composed of a front wall 1, rear wall 2, side walls 3, top 4, and bottom 5.

Formed in the upper portion of the front wall 1 is an opening 6, normally closed by a draw curtain 7, and through which opening the bags are delivered to and taken from the rotary member of the cleaning machine.

Extending across the front of the machine, immediately adjacent the front wall 1 and just below the opening 6 is a hopper 8, and formed through the front wall 1 immediately in front of said hopper is a discharge opening 9, normally closed by a sliding panel 10.

Fixed to the side walls 3 within the upper portion of the housing are horizontally disposed timbers 11, and fixed thereon are journal boxes 12, in which is arranged for rotation a shaft 13, one end of which projects beyond one of the side walls 3 and receives a pulley 14. Fixed on the shaft 13 within the housing is a pair of disks 15, and seated in said disks are pairs of radially projecting arms

16, the outer ends of each pair of said arms being connected by cross pieces 17.

Hinged to one end of each cross piece is a clamping bar 18, the opposite end of which is slotted, as designated by 19, and engages a bolt 20, seated in the corresponding end of the cross piece 17, and arranged on the threaded end of the bolt 20 is a nut 21.

Arranged adjacent the rear wall 2 of the housing is a vertically disposed partition 22, thus forming an air compartment 23 in the rear of the housing, and leading upward from this compartment is an outlet pipe 23<sup>a</sup>. Vertically disposed within the housing adjacent the side walls 3 are partitions 24, which extend from the hopper 8 to the partition 22, and thus air spaces 25 are formed at the sides of the lower portion of the housing, which air spaces communicate with the air space 23.

The upper ends of the partitions 24 terminate a short distance below the path of travel of the clamps on the outer ends of the arms 16, and fixed on the tops of said partitions and extending between the rear portion of the hopper 8 and the partitions 22 is a wire screen 26. Fixed to the under side of the top 4, immediately above the shaft 13, is a transversely disposed timber 27. Formed through the lower ends of the wall 2 and partition 22 is an opening 28, through which any matter accumulating on the bottom of the machine below the screen may be removed.

The operation of my improved machine is as follows: The curtain 7 is drawn to one side of the opening 6 and the bottom end of a bag is placed between each cross piece 17 and the corresponding clamping bar 18, after which the clamping bar is forced downward by manipulating the nut 21 to clamp said bag, and after bags have been engaged by all of the clamping members, the curtain 7 is drawn to close the opening 6, and the shaft 13 is now rotated by a belt operating on the pulley 14. The bags carried by the rotating member will, during the operation thereof, tend to straighten out on radial lines, due to centrifugal force, and the outer portions of said bags, during their travel, will strike against the timber 27, against the partition 22, and will be drawn over the screen 26, and this combined beating and rubbing will very quickly and efficiently clean the bags or remove all particles of material adhering thereto, which material will pass through the screen 26 and be deposited on the bottom 5



of the housing. Any large pieces of material which may adhere to the bags will be beaten off, and will finally pass into the hopper 8, from whence they are removed through the opening 9 when the panel 10 is elevated. The rotary member and the bags carried thereby necessarily set up a strong current of air within the housing, above the screen 26, the greater portion of which current of air finds exit downward between the partitions 24 and the side walls 3, and from thence upward through the air space or compartment between the rear wall 2 and partition 22, and from thence through the outlet pipe 23<sup>a</sup>.

15 A bag cleaning machine of my improved construction is very simple, operates with a minimum amount of power, and very rapidly cleans all kinds of fabric bags, such as are usually employed for holding sand, cement, lime, flour, or any powdered or pulverized product.

I claim:

1. A bag cleaning machine comprising a housing, a rotary member arranged for operation therein, a series of bag clamps arranged on the rotary member, a screen ar-

ranged in the housing beneath the rotary member, and a hopper within the housing in front of the screen.

2. A bag cleaning machine comprising a housing, a rotary bag carrying member arranged for operation in the upper portion of the housing, a screen arranged adjacent the rotary member, there being communicating air chambers formed in the housing to accommodate the draft of air created by the rotary member, and one of the air chambers being provided with an outlet.

3. A bag cleaning machine, comprising a housing, a rotary bag carrying member arranged for operation within the housing, a reticulated member arranged within the housing against which the bags carried by the rotary member engage, and a hopper arranged beneath the reticulated member.

In testimony whereof, I have signed my name to this specification, in presence of two subscribing witnesses.

GEORGE M. HASEN.

Witnesses:

M. P. SMITH,  
E. L. WALLACE.