

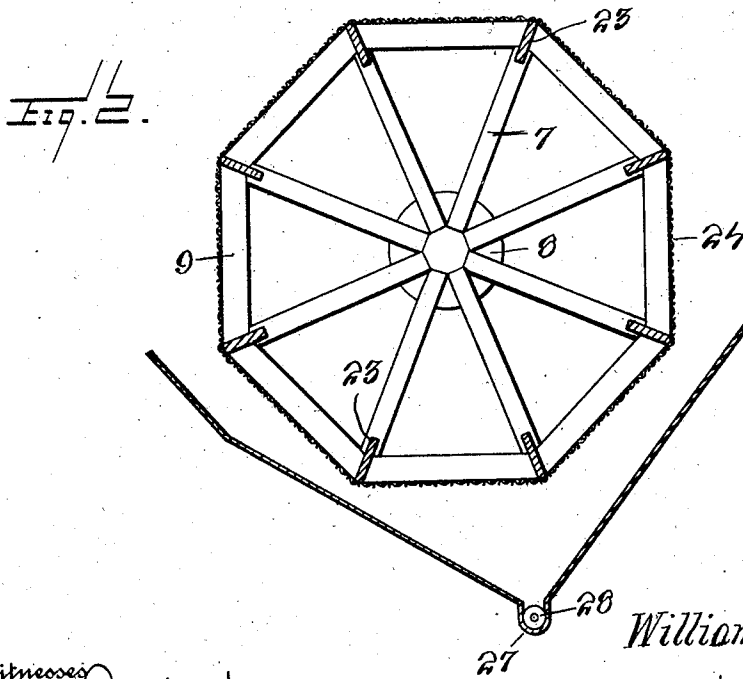
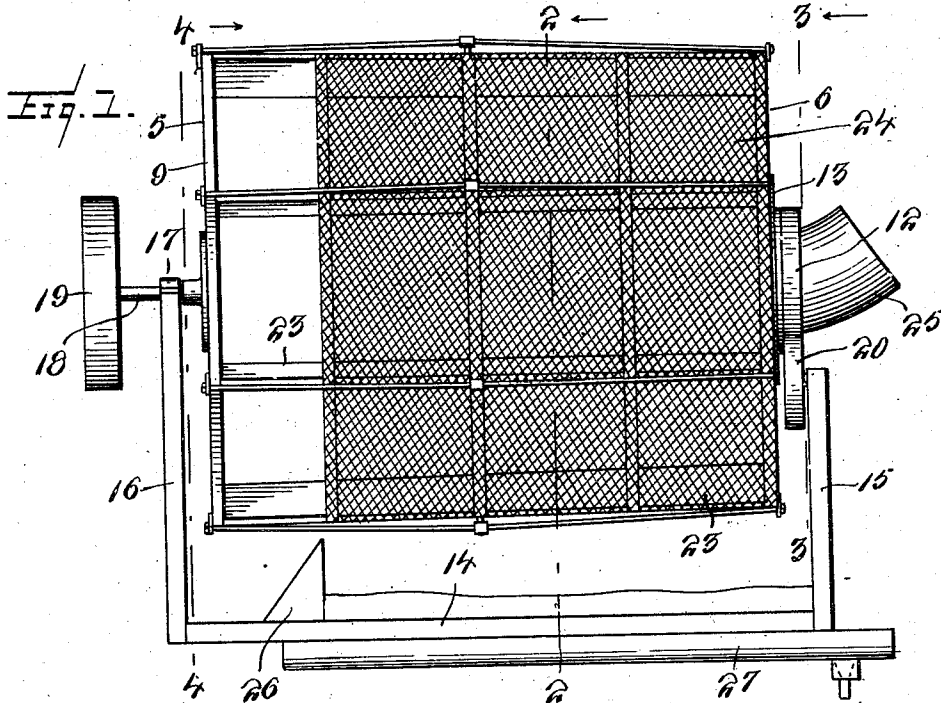
W. SCOTT.
BAG CLEANER.

APPLICATION FILED MAY 24, 1910.

Patented Oct. 25, 1910.

2 SHEETS-SHEET 1.

974,096.



Witnesses
E. R. Ruppert.
John A. Doney.

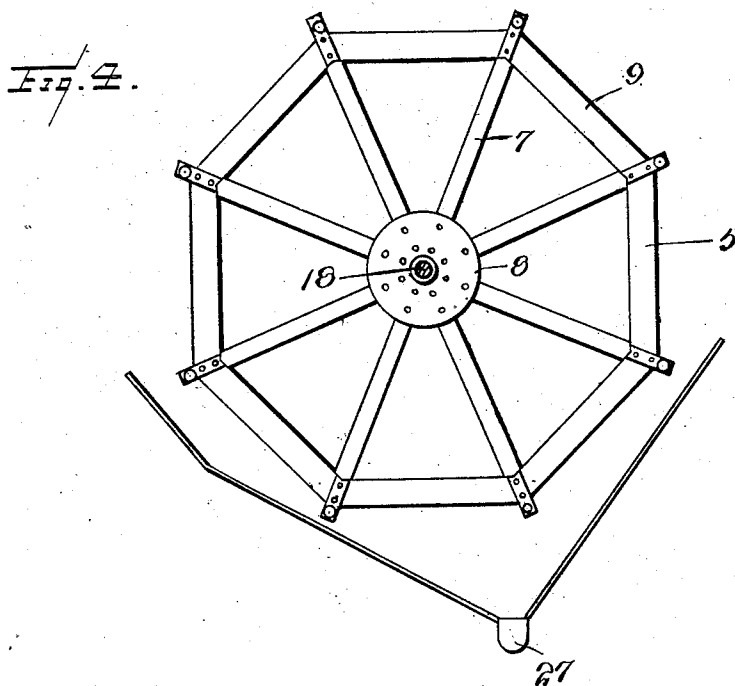
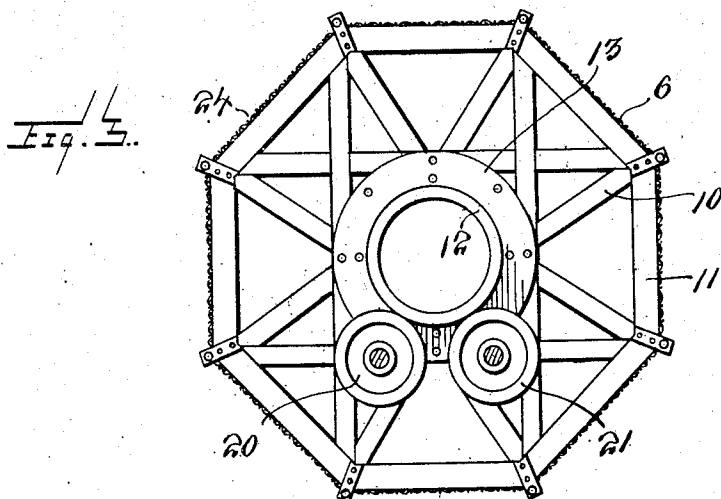
Inventor
William Scott
By Victor J. Evans
Attorney

974,096.

W. SCOTT.
BAG CLEANER.
APPLICATION FILED MAY 24, 1910.

Patented Oct. 25, 1910.

2 SHEETS—SHEET 2.



Witnesses
E. R. Ruffert.
John A. Vanezay.

Inventor
William Scott
By Victor J. Evans
Attorney

UNITED STATES PATENT OFFICE.

WILLIAM SCOTT, OF SIEGFRIED, PENNSYLVANIA.

BAG-CLEANER.

974,096.

Specification of Letters Patent.

Patented Oct. 25, 1910.

Application filed May 24, 1910. Serial No. 563,213.

To all whom it may concern:

Be it known that I, WILLIAM SCOTT, a citizen of the United States, residing at Siegfried, in the county of Northampton and State of Pennsylvania, have invented new and useful Improvements in Bag-Cleaners, of which the following is a specification.

This invention relates to improvements in bag cleaners and more particularly to the type known as rotary bag cleaners.

The invention is primarily intended to be used for cleaning empty bags which contained cement or a similar substance and has for one of its objects the provision of a cleaner including a drum having means at one end through which the bags to be cleaned are fed and provided at its opposite end with a discharge through which the bags pass out after having been cleaned.

Another object is the provision of a drum provided with a plurality of blades serving as agitators to move the bags while in the drum.

With these and other objects in view, which will more fully hereinafter appear, the present invention consists in certain novel details of construction and arrangement of parts, hereinafter fully described, illustrated in the accompanying drawings, and more particularly pointed out in the appended claims; it being understood that various changes in the form, proportion, size, and minor details of the device may be made, within the scope of the appended claims, without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings, forming part of the specification;—Figure 1 is a side elevation of the device. Fig. 2 is a sectional view taken on the line 2—2 of Fig. 1 and looking in the direction of the arrows. Fig. 3 is a sectional end view taken on the line 3—3 of Fig. 1 and looking in the direction of the arrows. Fig. 4 is a sectional end view on the line 4—4 of Fig. 1 and looking in the direction of the arrows.

Similar numerals of reference are employed to designate corresponding parts throughout.

The drum is shown to include in its construction oppositely positioned ends designated in general by the numerals 5 and 6. The end 5 will subsequently be termed the discharge end and the end 6 the feed end,

the end 6 being somewhat less in area than the end 5 for a purpose to appear later.

The discharge end 5 includes a plurality of spokes 7. As shown in Fig. 4 eight of these spokes are employed the inner ends of which are connected by a circular casing 8, while the outer ends of which are connected by straight end pieces 9, whereby the contour of the end is octagonal. The feed end 6 corresponds in contour to the end 5 being made up of a plurality of spokes 10 and outer end pieces 11, the only difference in construction between the ends residing in the fact that the spokes 10 are somewhat less in length than the spokes 7, so that the inner ends are considerably spaced from the center of the end 6.

A flat bearing ring is designated by the numeral 12 and is provided on one side with a circular flange 13, which is bolted or otherwise secured to the inner end portions of the spokes 10 of the end 6. With this construction it will be manifest, by virtue of the ring 12 that a circular opening will be presented at the central portion of the feed end 6.

A supporting frame is shown to include in its construction a base 14 somewhat greater in length than the length of the drum and rising from the opposite ends of the base are standards 15 and 16. The standards 15 and 16 rise to points adjacent to the center of the ends 5 and 6 and the standard 16, or that adjacent to the discharge end 5 is provided at its upper end with a boxing 17 in which is journaled a shaft 18. One end of the shaft 18 is fixedly secured in the casing 8, while the opposite end is provided with a pulley 19 which has a belt connection with the drive shaft (not shown). Arranged on the inner face of the standard 15 or that adjacent to the feed end of the drum are a pair of spaced rollers 20 and 21, the said rollers lying in a horizontal plane and bearing on the lower portion of the bearing ring 12. With this construction it will be manifest when motion is imparted to the drum by means of the pulley 19 the bearing ring 12 will rotate on the rollers 20 and 21, while the shaft 18 will rotate in the boxing 17.

Connection between the ends 5 and 6 is established by means of a plurality of blades or agitators 23. The number of blades or agitators will correspond to the number of

spokes in the opposite ends 5 and 6, the said blades or agitators having their opposite ends secured in diametrically opposite pairs of spokes.

5 The blades or agitators may be of any suitable material and are oblong in cross section, and are so positioned that their opposite flat faces will extend radially, while their outer longitudinal sides will be co-
10 incident with the outer ends of the spokes. The drum is partially covered by a wire screen 24 encircling the drum and extending from the feed end 6 to a point adjacent the discharge end 5.

15 Leading through the bearing ring 12 is one end of a hopper 25, and inclining downwardly and outwardly from the space between the discharge end 5 and end of the wire covering 24 is a chute 26.

20 Positioned below the drum is a casing 27, and arranged in said casing is a screw conveyor 28 actuated by suitable mechanism (not shown).

In use and while the drum is rotating the
25 empty bags are fed into the drum through the hopper 25. It will be manifest, when the empty bags fall into the drum they will be raised to a certain height by any of the blades 23 and fall to the bottom. These successive fallings will loosen the dust from the bags, whereby the said dust will fall through
30 the screen covering and onto the conveyor 28 whence it will be conveyed to its proper destination. It will be observed, owing to the unequal areas of the opposite ends of the drum that the bags will have a tendency to work to the discharge end of the drum, in fact the crowding effect produced by continually feeding the bags into the feed end
40 will alone move the body of bags forward

and through the discharge end, whereby the bags will be retained within the drum a comparatively long time before being discharged through the space between the wire and adjacent end 5 and into the chute 26.

45 From the foregoing, it is evident that I have provided a device which is comparatively simple in structure and inexpensive in manufacture, embodying few parts and these so arranged that the danger of de- 50 rangement will be reduced to a minimum.

I claim:—

1. In a bag cleaner the combination with a support; of a drum having oppositely positioned end pieces one of which is provided
55 with a shaft journaled on one end of the support and the opposite of said end pieces having a central opening, a flat annulus secured to the said opposite end and surrounding said opening and bearing on the adjacent
60 end of said support, for the purposes described.

2. In a bag cleaner the combination with a support; of a substantially frusto-conical drum having oppositely positioned end
65 members, one of which is provided with a shaft journaled on one end of said support and the opposite of said end members having a central opening, a flat annulus secured to the said opposite end member and sur-
70 rounding the said opening and bearing on the opposite end of the support, and a screen encircling a portion of said drum.

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

WILLIAM SCOTT.

Witnesses:

DANIEL L. BRITTEN,
RALPH B. CLEMENT.