

No. 699,435.

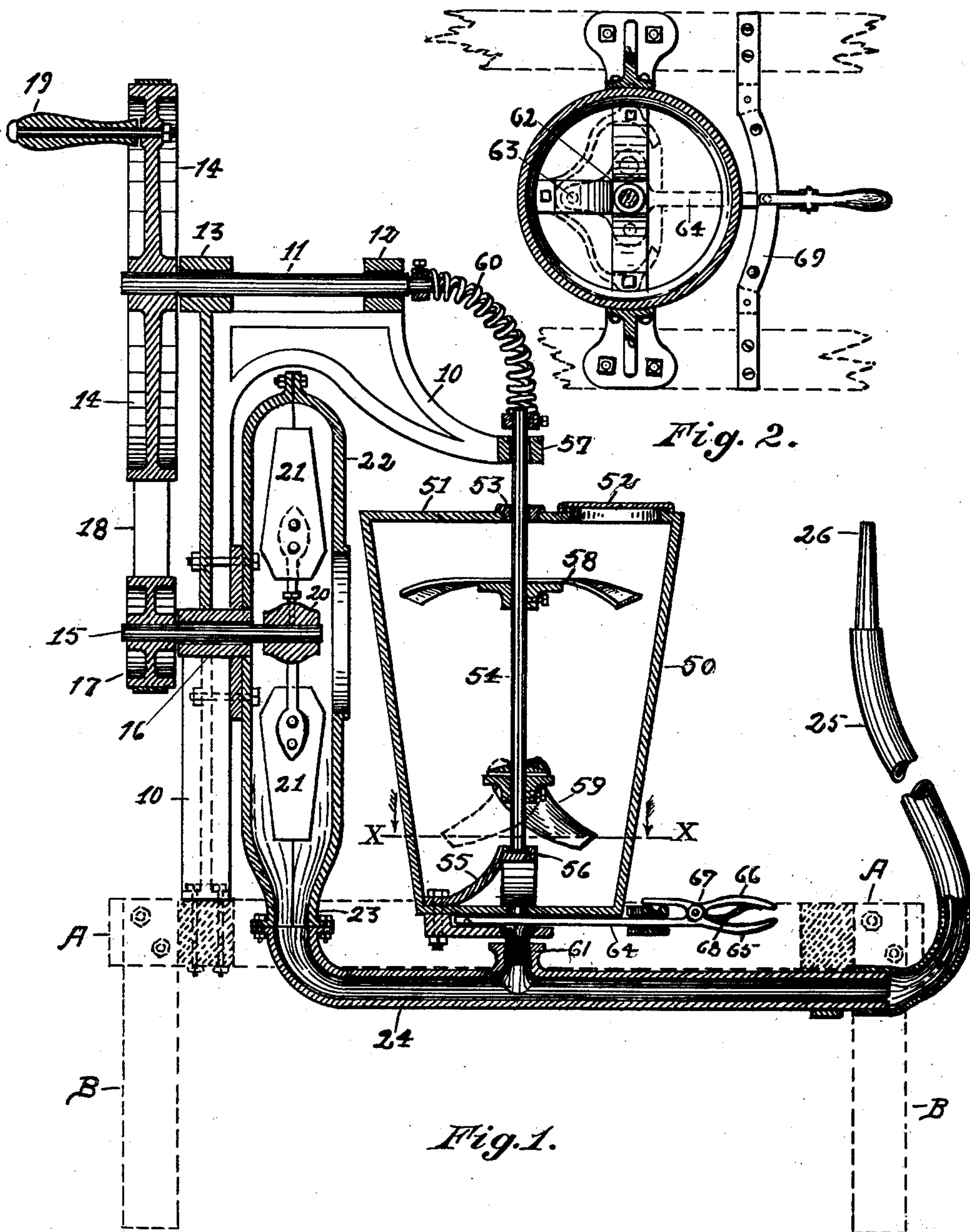
Patented May 6, 1902.

C. H. ASLING.
DUST SPRAYING MACHINE.

(Application filed Sept. 8, 1901.)

(No Model.)

4 Sheets—Sheet 1.



Witnesses:
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R. E. Kandle

Inventor:
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Robert W. Kandle

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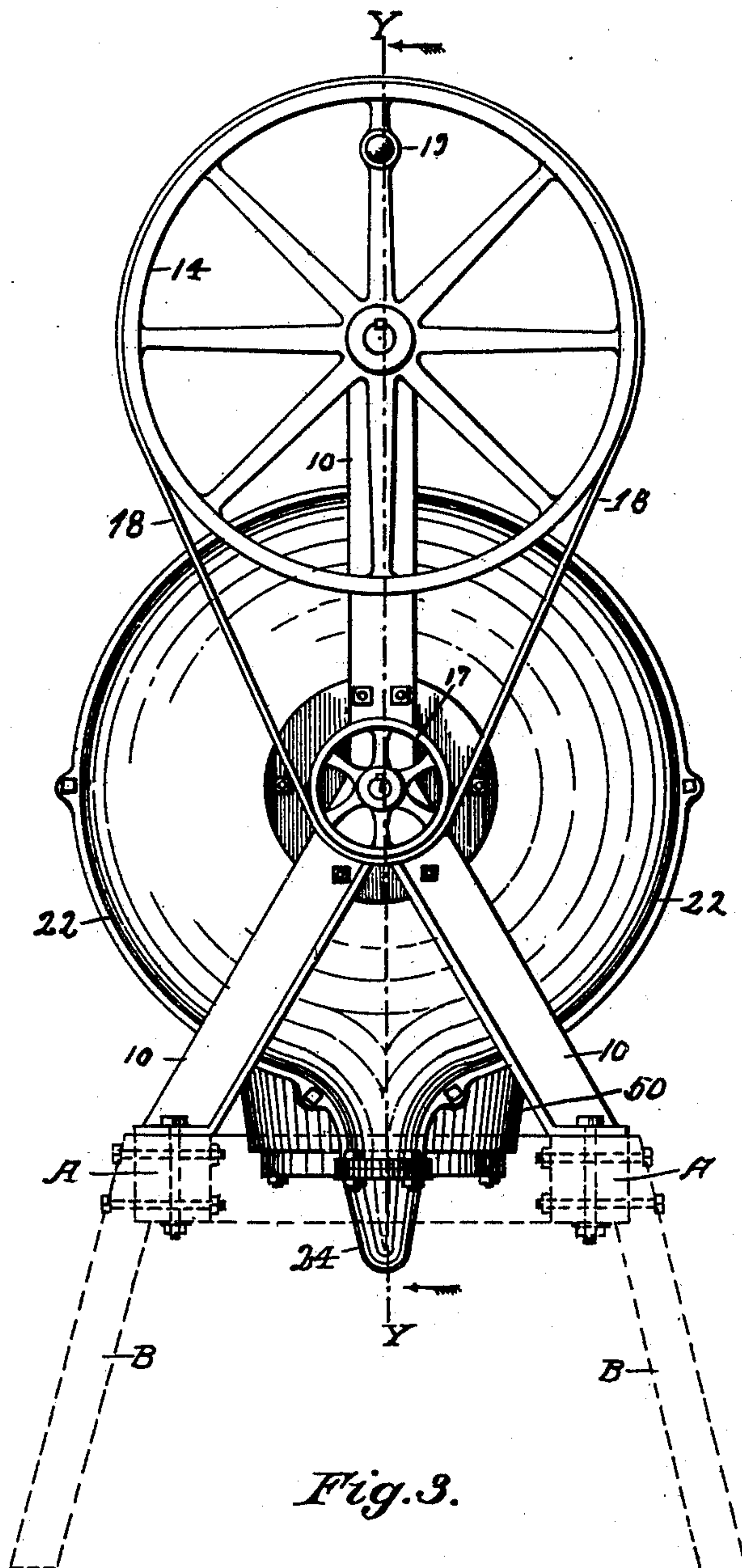
Patented May 6, 1902.

C. H. ASLING.
DUST SPRAYING MACHINE.

(Application filed Sept. 3, 1901.)

(No Model.)

4 Sheets—Sheet 2.



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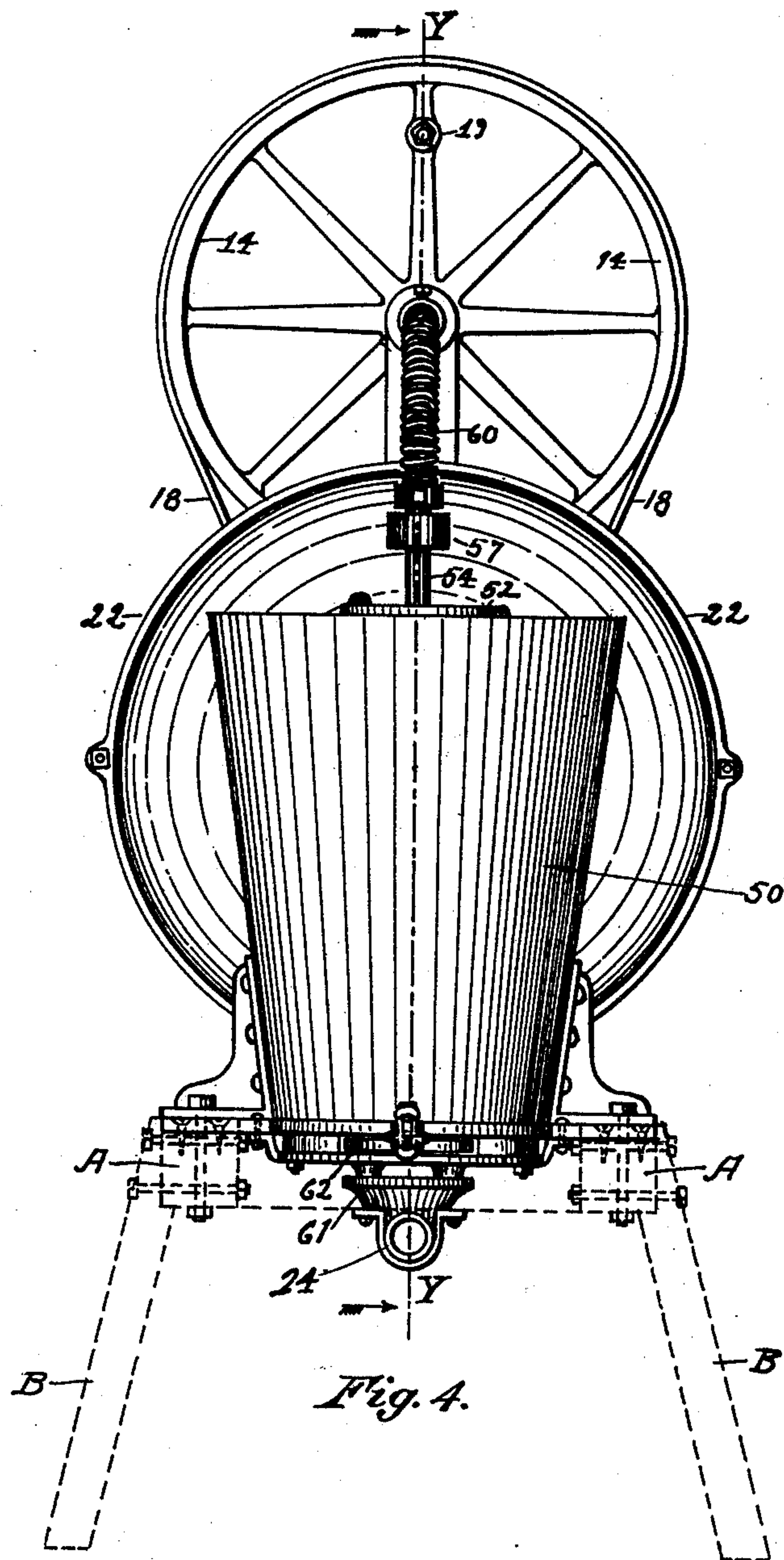
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(Application filed Sept. 3, 1901.)

(No Model.)

4 Sheets—Sheet 3.



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Patented May 6, 1902.

C. H. ASLING.
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(Application filed Sept. 3, 1901.)

(No Model.)

4 Sheets—Sheet 4.

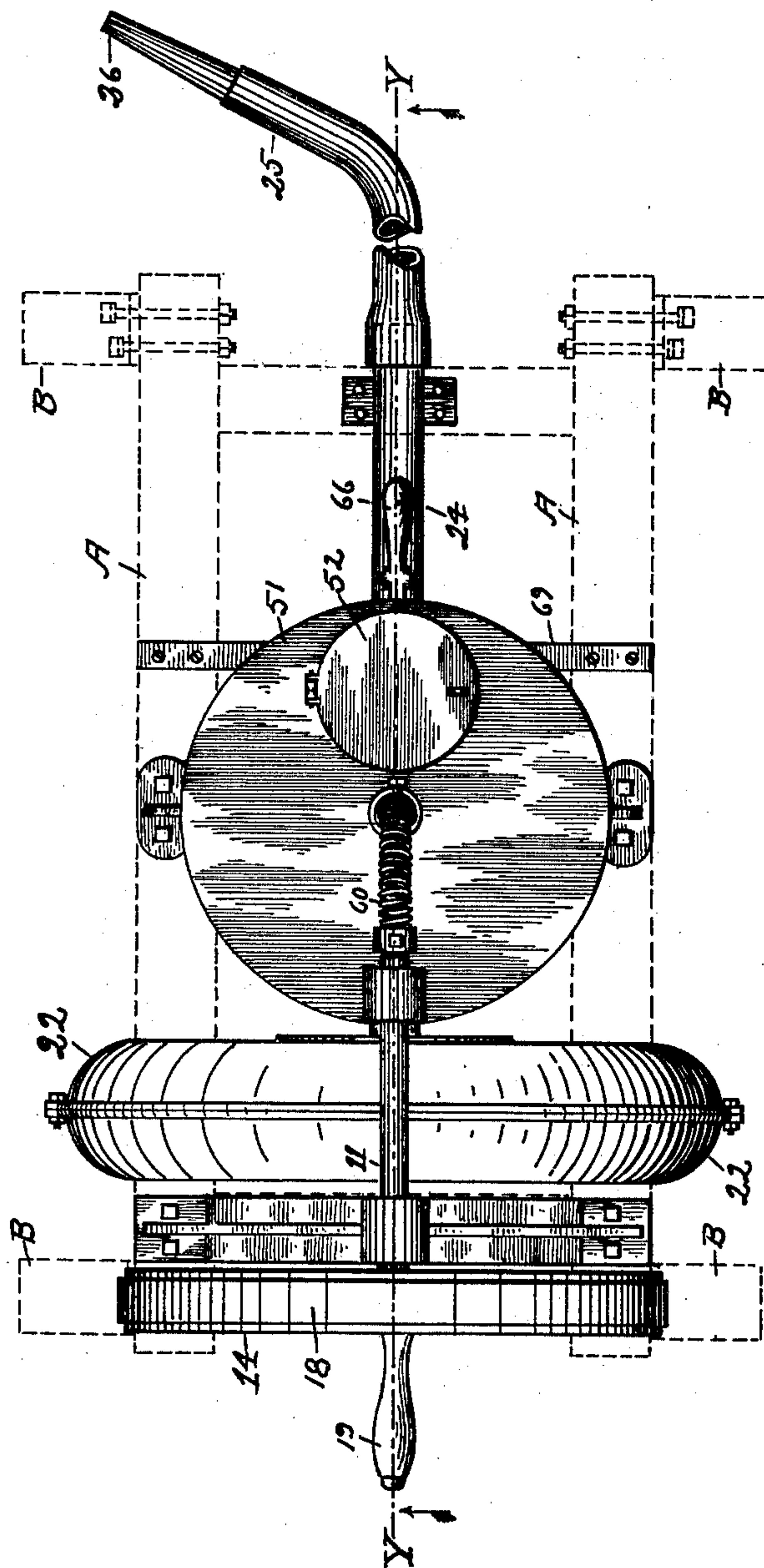


Fig. 5.

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UNITED STATES PATENT OFFICE.

CHARLES H. ASLING, OF SPRINGFIELD, MISSOURI.

DUST-SPRAYING MACHINE.

SPECIFICATION forming part of Letters Patent No. 699,435, dated May 6, 1902.

Application filed September 3, 1901. Serial No. 74,202. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. ASLING, a citizen of the United States, residing at Springfield, in the county of Greene and State of Missouri, have invented new and useful Improvements in Dust-Spraying Machines, of which the following is a specification, which is sufficiently clear and concise as to enable others skilled in the art to which it appertains to make and use the same.

My invention consists in the parts, arrangement, improvements, shape, and combinations thereof, substantially as hereinafter shown and described, and more specifically set forth in the claims terminating this specification.

The most important object of this present invention is to provide a dust-spraying machine capable of a wide scope of operation and usefulness, neat and attractive in appearance, light and compact in its construction, and composed of the fewest number of mechanical parts without sacrificing its usefulness or efficiency.

Another object is to provide a dust-spraying machine which can easily be operated by hand-power for the purpose of forcing a spray of dust to a great height.

Another object is to provide a dust-spraying machine in which the dust or powder will not become clogged or banked in the machine, but will be automatically fed to the exhaust-nozzle and there controlled by the operator, and still another object is to provide a dust-spraying machine which will be simple in construction, positive in its action, and which can be manufactured and sold at a comparatively low price.

Other objects and advantages will appear from the following specification and from the drawings forming a part thereof, as fully set forth hereinafter.

The details of the invention and the manner of operation of the various parts will be fully set forth hereinafter and the novel features recited in the appended claims.

In the accompanying drawings, forming a part of this specification, Figure 1 is a vertical section through the machine, taken on the line Y Y of Figs. 3, 4, and 5. Fig. 2 is a detail plan view of a portion of the machine,

taken on line X X of Fig. 1. Fig. 3 is a front elevation of the machine, and Fig. 4 is a rear elevation of the machine, and Fig. 5 is a top plan view of the machine.

Similar letters and figures of reference denote like parts through the several views.

A represents a trestle on which my machine is mounted and is provided with legs B, as shown.

The left-hand end of the machine, as shown in the drawings, I will term the "front" and the right-hand end of the machine I will term the "rear," Figs. 1 and 5.

Secured to the front end of the trestle and rising therefrom and projecting rearward at the top is the main casting or frame 10 of my machine for supporting the various parts thereof.

11 represents a shaft mounted in the bearings 12 and 13. On the front end of 11 is secured the main drive-wheel 14.

15 represents a shaft below and parallel with 11, mounted in the bearing 16. On the end of 15 is secured a pulley-wheel 17, which is placed in alinement with 14, with a belt 18 connecting 14 and 17, as shown. The wheel 17 is much smaller than the wheel 14, so that when the wheel 14 is revolved by means of the handle 19 or otherwise the wheel 17 will be revolved at a much more rapid rate of speed than the wheel 14.

On the rear end of the axle 15 is secured a hub 20, with a multiple of arms or paddles 21 extending out therefrom. Surrounding the hub 20 and the paddles 21 is a case 22 with a neck 23 at its lower central point, with an opening connecting with the pipe 24. The pipe 24 projects downward through A and thence rearward underneath A to the rear end of A, where it is provided with a flexible pipe 25, which latter is provided with a nozzle 26. Should the wheel 14 be turned, the belt 18, acting on the wheel 17, will carry the axle 15 and it in turn the hub 20 with the paddles 21 at a high rate of speed, thus causing a current of air to pass rapidly through the pipe 24 and out at the nozzle 26.

Secured to and rising from near the center of A in the rear of 22 is a round chamber with its walls flaring outward, as shown, and a top permanently secured thereto. At some

convenient point in the top 51 I provide a round orifice, through which material, such as dust, can be inserted into the chamber 50. This orifice I provide with a cap or cover 52.

- 5 In the center of the top 51 I provide a bearing 53, through which the shaft 54 may revolve. In the bottom of 50 I secure a bracket 55, in the upper end of which is a bearing 56, in which the lower end of the shaft 54 is jour-
 10 naled. In the rear upper end of the casting 10 is made a bearing 57 for the support of the upper end of the shaft 54.

- Secured on the shaft 54 on the inside of the chamber 50 are two sets of blades or agitators
 15 58 and 59, which are adapted to agitate and press downward on the contents of the chamber 50. The upper end of the shaft 54 is connected to the rear end of the shaft 11 by a flexible coil-spring 60, as shown.

- 20 The bottom of the chamber 50 is provided with a hole through the center thereof, which hole connects with and forms an opening through the neck 61 into the pipe 24. On the under side of the bottom of 50 I provide a
 25 plate 62, pivotally connected at 63, the rear end of said plate extending back to form the arm 64, the rear end of the latter being provided with a handle 65. On each side of the center of the plate 62 I provide a hole, each
 30 of which are of a different size and which are arranged to come into alinement with the hole in the bottom of the chamber 50 when the handle 65 is placed at its extreme point to the right or left. When the handle is placed
 35 in the center, as shown in Fig. 2, the opening from 50 to 24 is entirely closed. The handle 65 is provided with a corresponding member 66, the two being pivotally united at 67 with a spring 66 between them in order to keep
 40 their rear ends apart.

- Extending across the frame A in the rear of 51 is the member 69, which acts as a guide for the handle 65, with three holes arranged an equal distance apart in its curved portion,
 45 as shown in Fig. 2. The inner end of 66 is provided with a pin or point which is adapted to be engaged in either of the three holes in 69. The drawings show the said point of 66 in the center hole held in engagement there-
 50 with by the spring 68. Now should 65 and 66 be pressed together the pin or point of 66 will be disengaged from the center hole in 67 and the handle can then be moved laterally to the right or left and again locked in either
 55 one of the other holes, in which case the capacity of the opening from 50 to 24 will be changed either large or small, as desired. By the above-described arrangement it can be seen that the amount of dust forced from 50
 60 into 24 can be regulated and the flow maintained at the point desired. It can now be seen that while the wheel 14 is being revolved to turn the paddles 21 it is apparent that axle 11, in connection with the coil-spring 60, con-
 65 nected to the shaft 54, will cause the agitators 58 and 59 to continually revolve and force

a supply of dust into the pipe 24, when it will be carried out through the nozzle 26 by the force of the air put in motion by the pad-
 70 dles 21.

My improvements, as shown and described, are perfectly adapted to accomplish the results for which they are intended, and it is evident that changes in and modifications of the construction herein shown and described
 75 may be made and that analogous parts may be used to accomplish the same results without departing from the spirit of my invention or sacrificing any of its many advantages.

The specific construction of the details of
 80 my machine, in which the novel features are embodied, may be variously changed without altering the essential principles which are claimed as new.

The terms "upward," "downward," "front,"
 85 "rear," and other similar terms are used for convenience of description, and it is not intended by their use to limit the arrangement of the parts to the relative positions indi-
 90 cated.

I wish it to be distinctly understood that I do not dedicate any part of my invention to the public and that I wish adequate and just protection for every feature of the machine and the various devices herein shown and de-
 95 scribed that is new and useful and which involve invention.

Having now fully shown and described my invention and the best mode for its construc-
 100 tion to me known at this time, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a dust-spraying machine, in combina-
 105 tion with a suitable base A, of a supporting-frame 10 rising therefrom and extending rear-ward at the top, with a shaft 11 mounted at the top in the bearings 12 and 13, a drive-wheel 14 secured to the front end of the axle 11, with a flexible coil-spring attached to the rear end of 11 and extending down in a curve and at-
 110 tached to the axle 54 which latter is at right angles to said axle 11, an axle 15 mounted in a bearing 16 located midway between the top and bottom of the frame 10, a pulley-wheel 17 secured to the front end of the axle 15 and
 115 immediately under the wheel 14, said wheels 14 and 17 being connected by a band passing over each so that the wheel 17 will be revolved by the wheel 14, a hub 20, provided with pad-
 120 dles 21, secured on the rear end of the axle 15, with a casing 22 inclosing the latter, substantially as shown and described, a dust-box 50 located in rear of the casing 22 which is provided with an opening provided with a cap
 125 or lid 52 in the top thereof, agitators secured on the shaft 54 and adapted to be revolved inside of the said dust-box 50, a pipe 24 extend-
 130 ing from the casing 22 underneath the paddles 21 with an opening extending up into the dust-chamber 50 with means for controlling the discharge of the dust from the dust-recep-
 135 tacle into the pipe 24 and a flexible tube 25

with a nozzle 26 attached to the outer end of the pipe 24, all substantially as shown and described and for the purposes set forth.

2. In a dust-spraying machine, in combination with the blowing mechanism operated by the main wheel, of a dust-box located in rear thereof, of a perpendicular shaft adapted to revolve therein carrying a series of arms or agitators, said shaft being pivoted in the bottom of the dust-box in a bracket 55 and the top of said shaft being supported by the bearing 57 and passing through the center of the top of the dust-box, of the axle 54 being revolved in unison with and by the axle 11 with a flexible coil-spring connecting them substantially as shown and described.

3. A dust-spraying machine; a base, a main casting rising from the base for supporting the various mechanisms; a power mechanism, consisting of the wheels 14 and 17, the axles 11 and 15, the belt 18, and the handle 19; an air-chamber formed by the casing 22, with paddles operated by the shaft 15 revolving in

said air-chamber; of a dust-box located in rear of the air-chamber with a shaft 54 revolving therein which shaft carries a multiple of agitators and is operated by the shaft 11 and at right angles thereto; of the flexible spring connecting the shafts 11 and 54 at right angles to each other; of a controlling mechanism located underneath the dust-chamber adapted to be operated by the handle projecting back therefrom and adapted to be locked in the position desired; of a pipe extending from the air-chamber, underneath the dust-chamber, and thence to the rear where it is provided with a flexible hose and a nozzle; all substantially as shown and described and for the purposes set forth.

In testimony whereof I have hereunto set my hand, in the presence of two subscribing witnesses, this the 22d day of August, 1901.

CHARLES H. ASLING.

Witnesses:

DAVID MAYES,
T. M. PENTZER.