

No. 763,543.

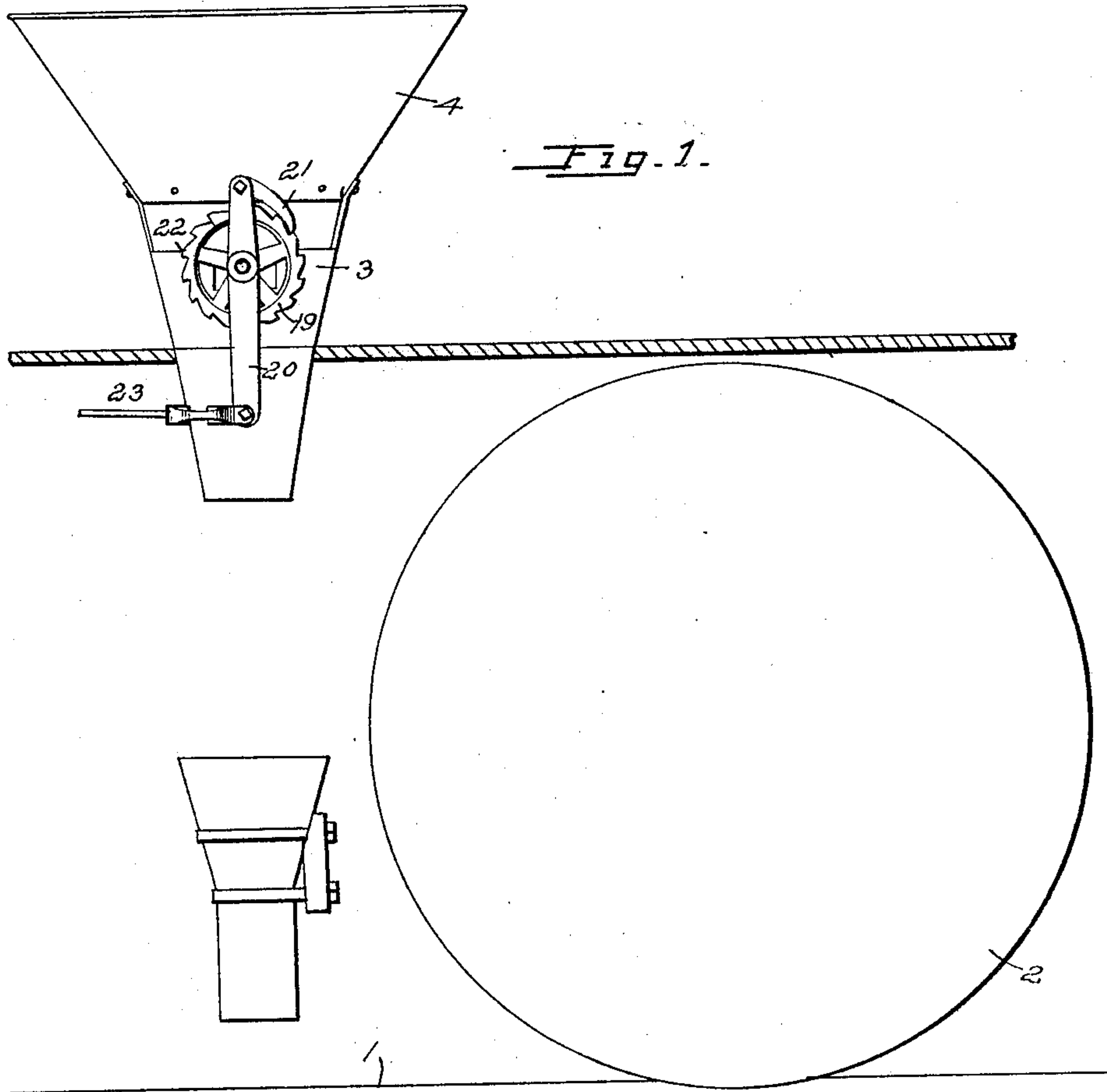
PATENTED JUNE 28, 1904.

W. M. DEAL.
TRACK SANDER.

APPLICATION FILED JUNE 17, 1903.

NO MODEL.

3 SHEETS—SHEET 1.



WITNESSES:

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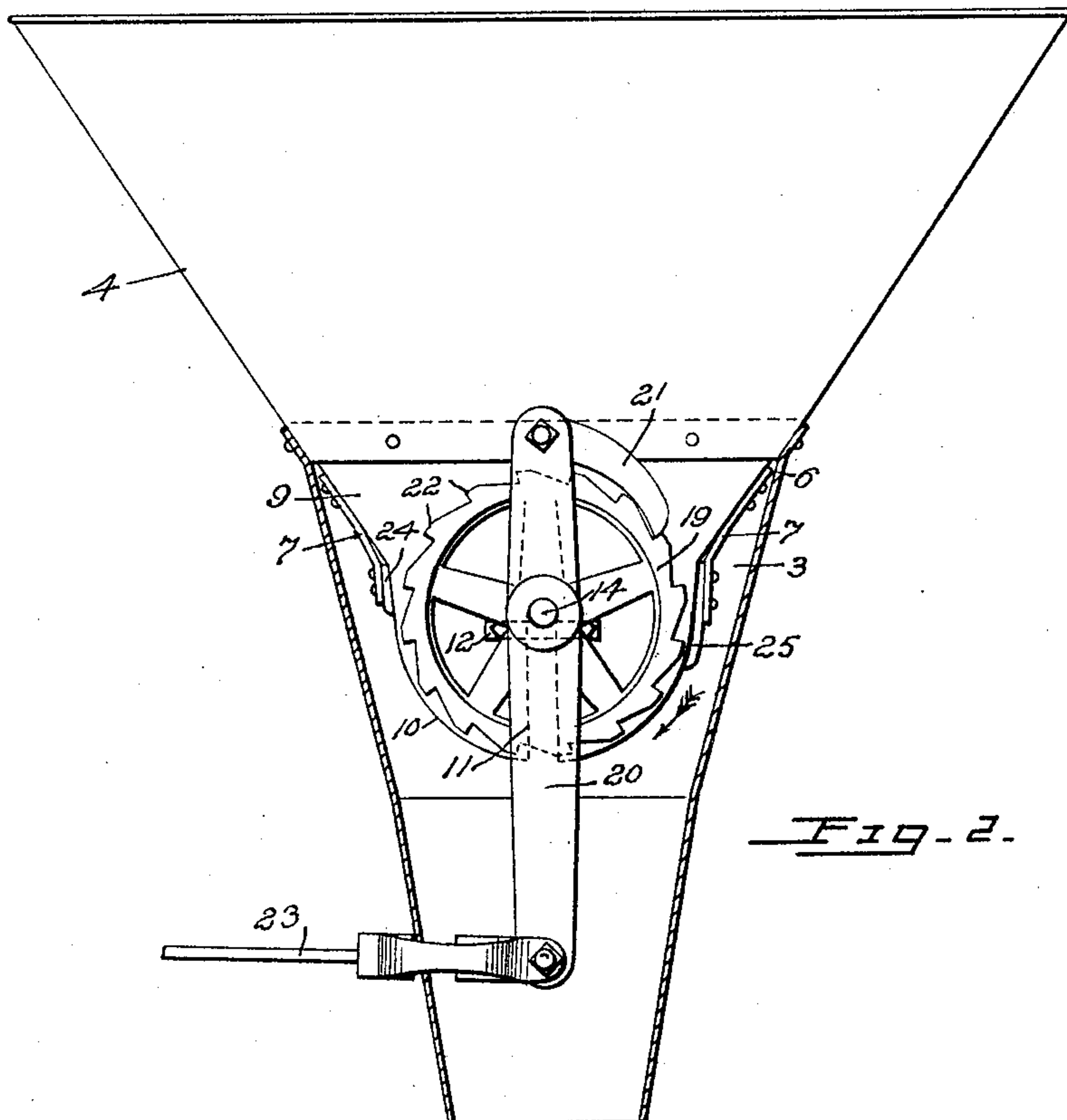


Fig. 2.

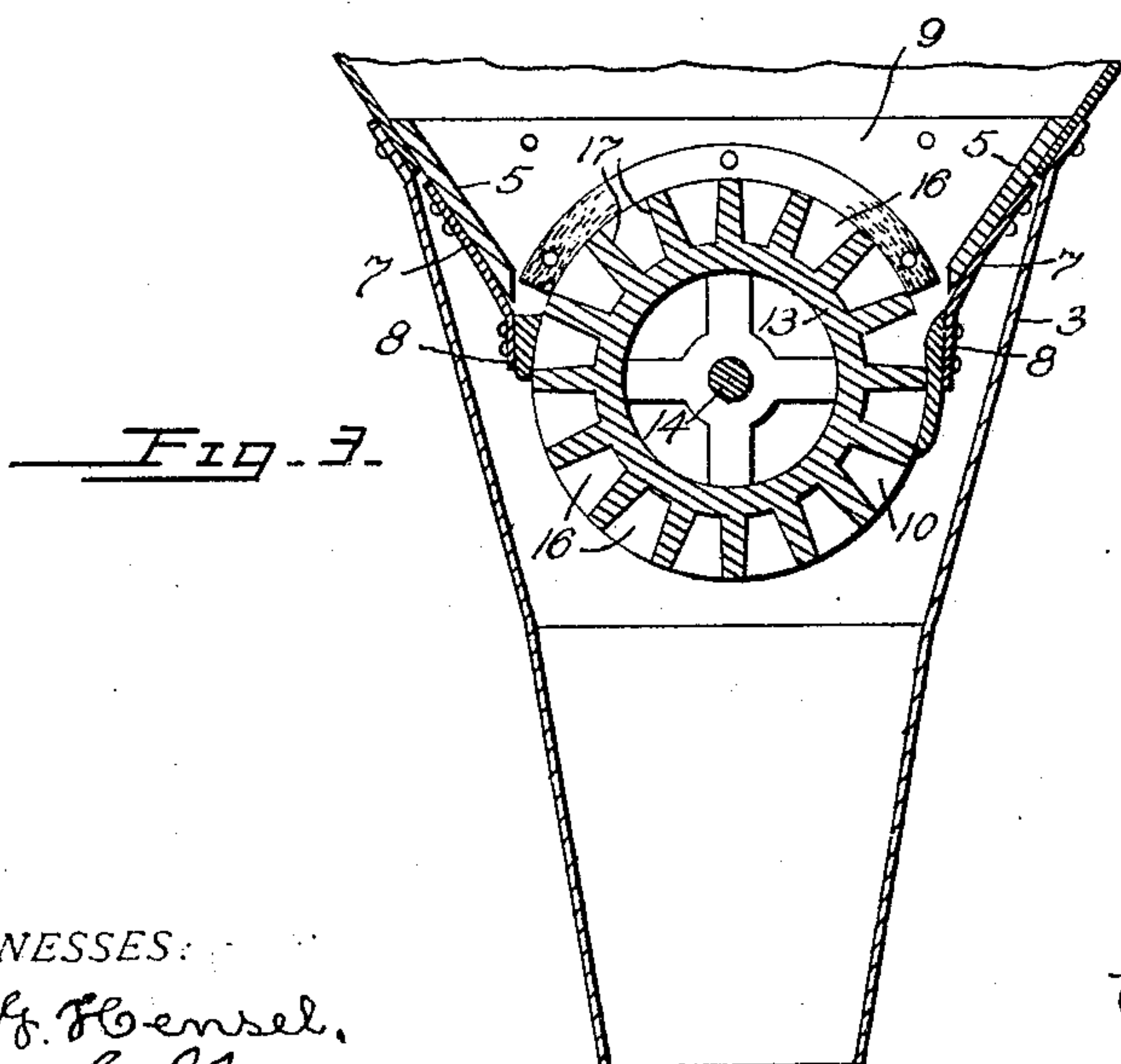


Fig. 3.

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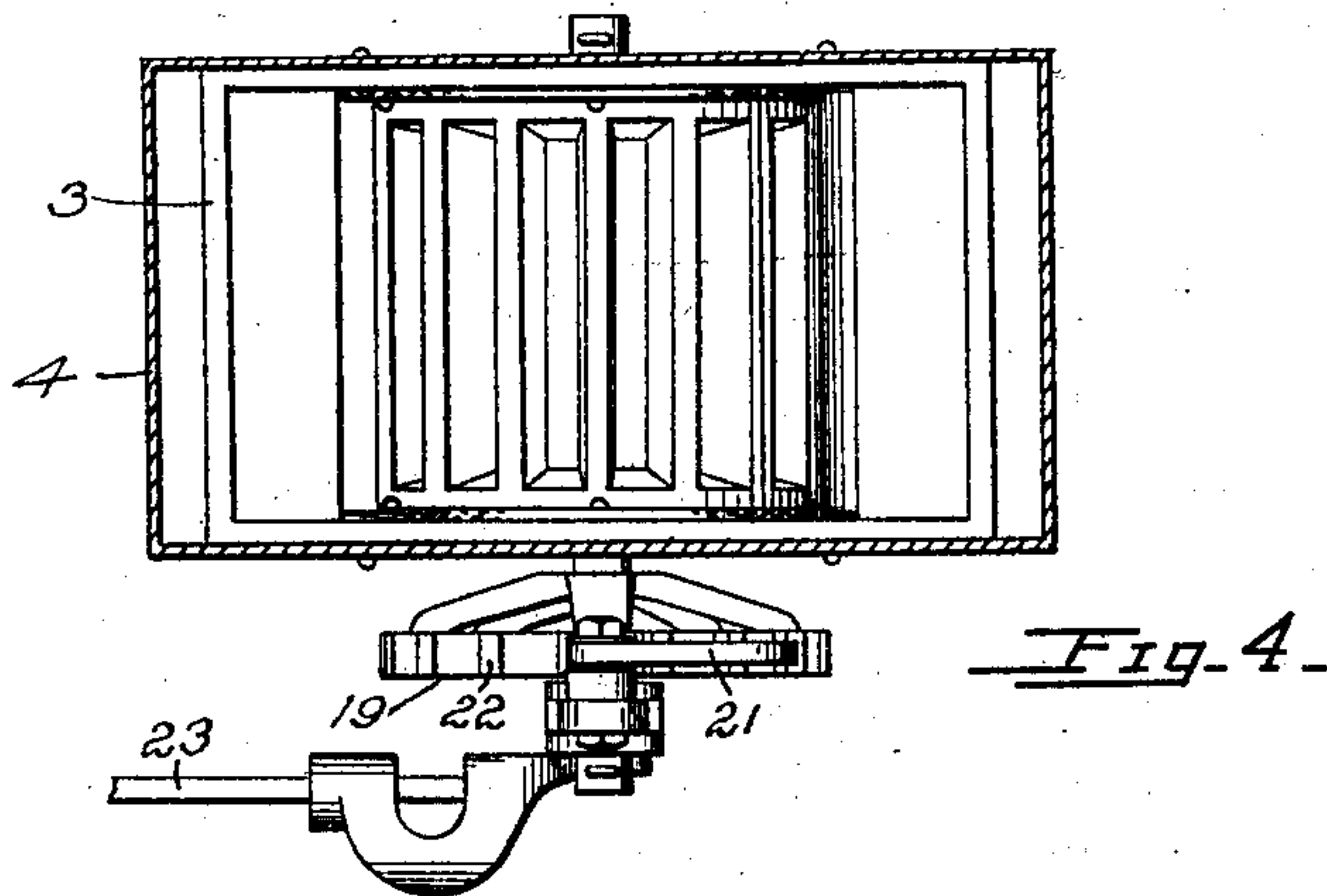


Fig. 4.

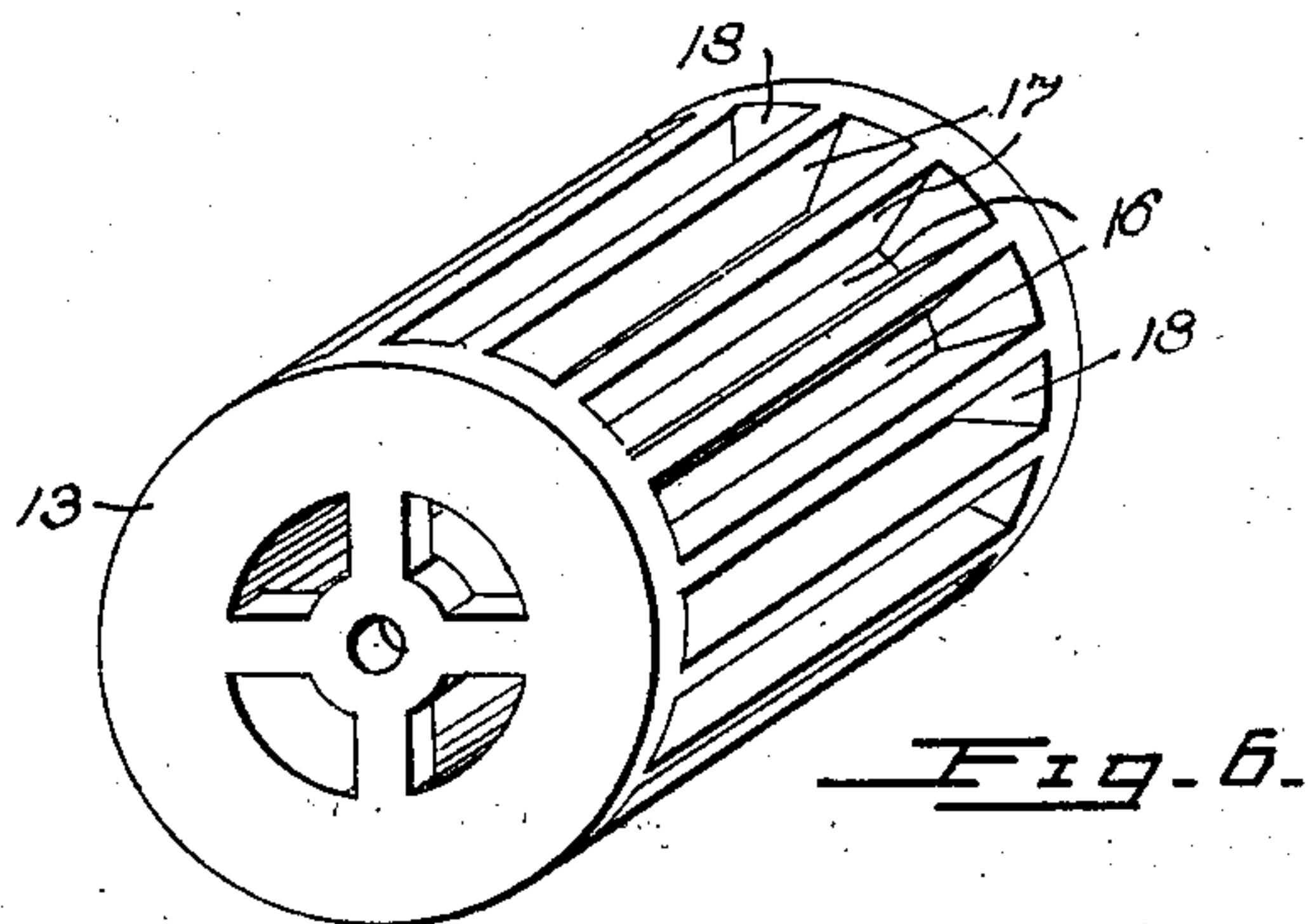


Fig. 6.

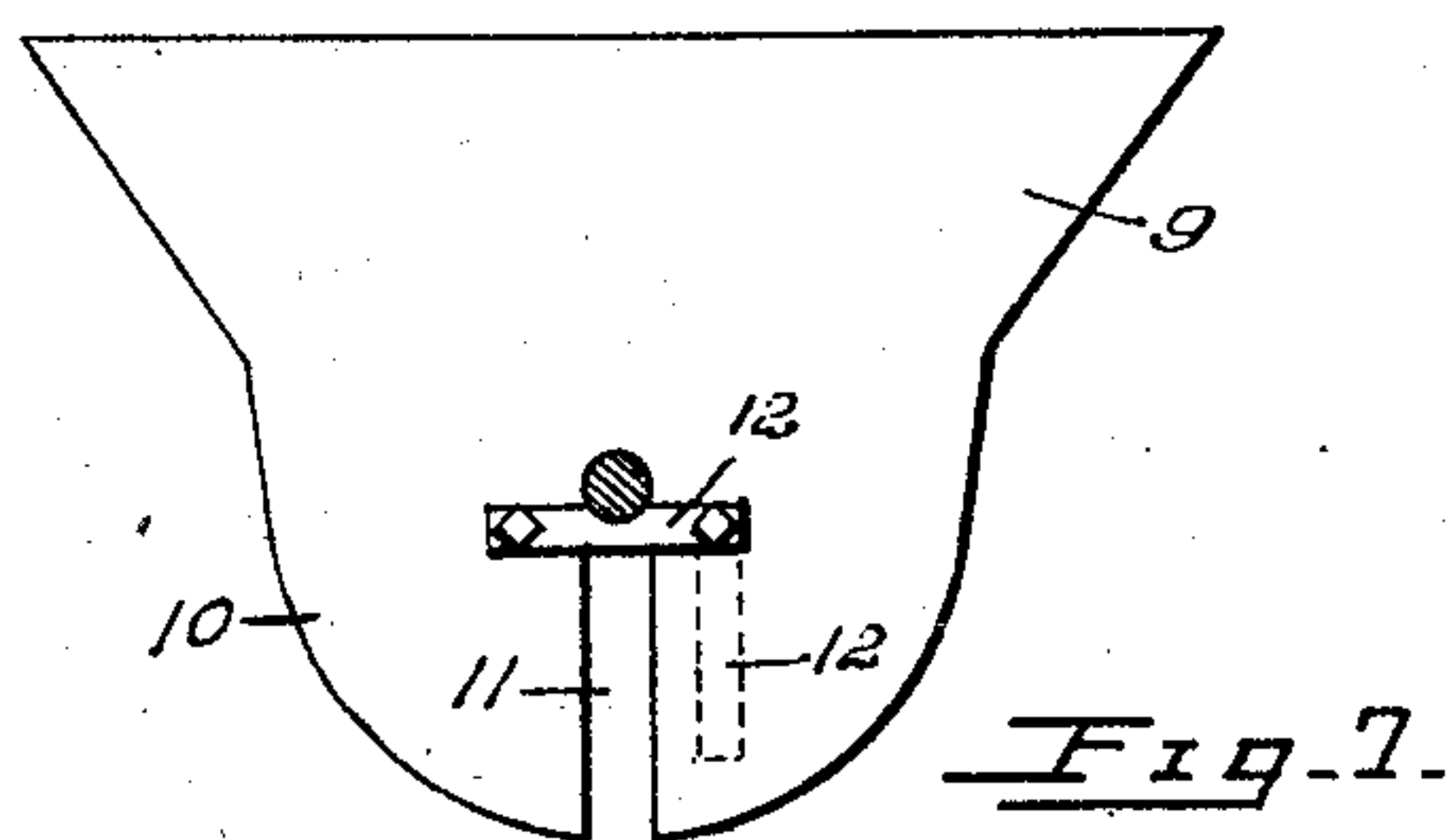


Fig. 7.

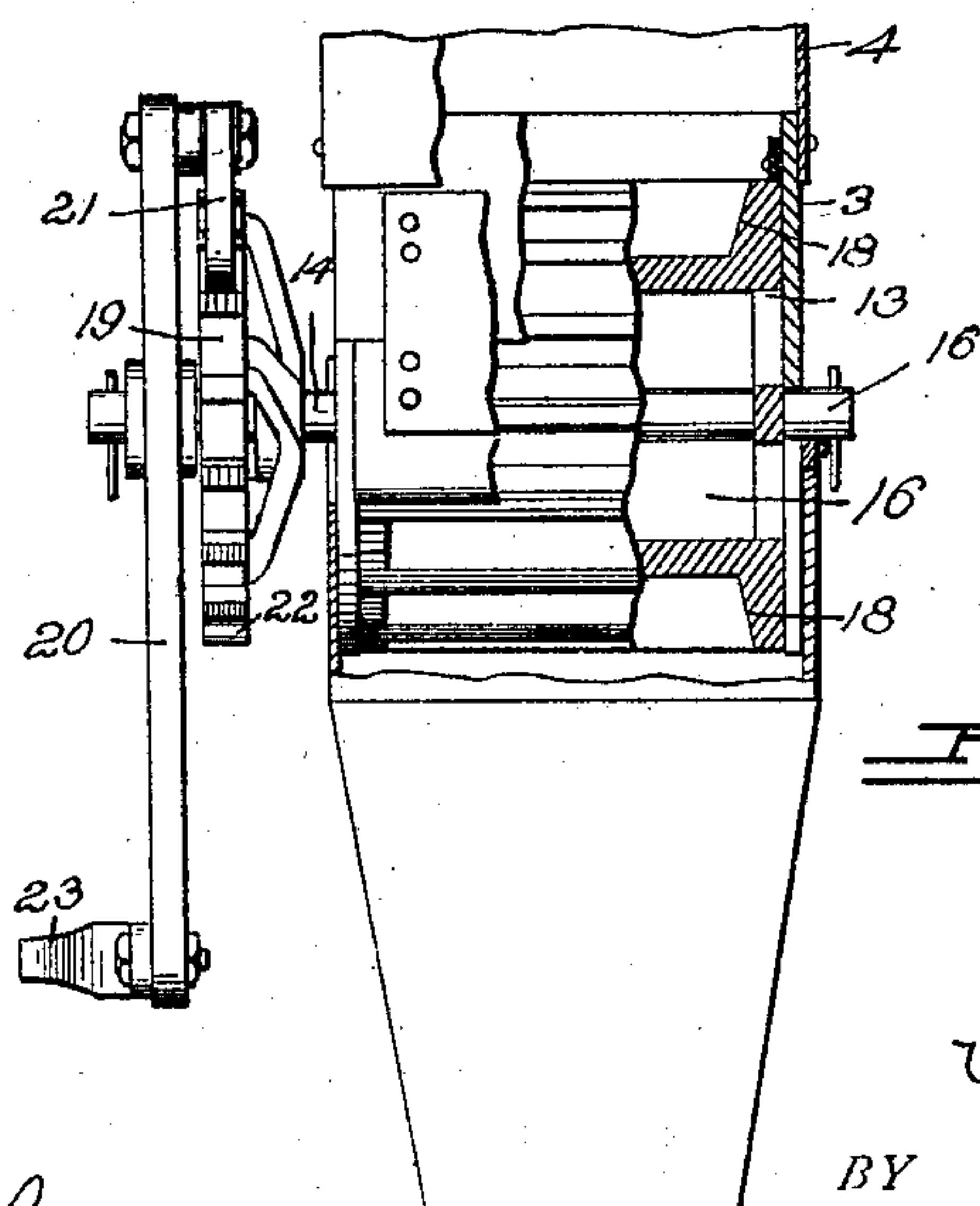


Fig. 5.

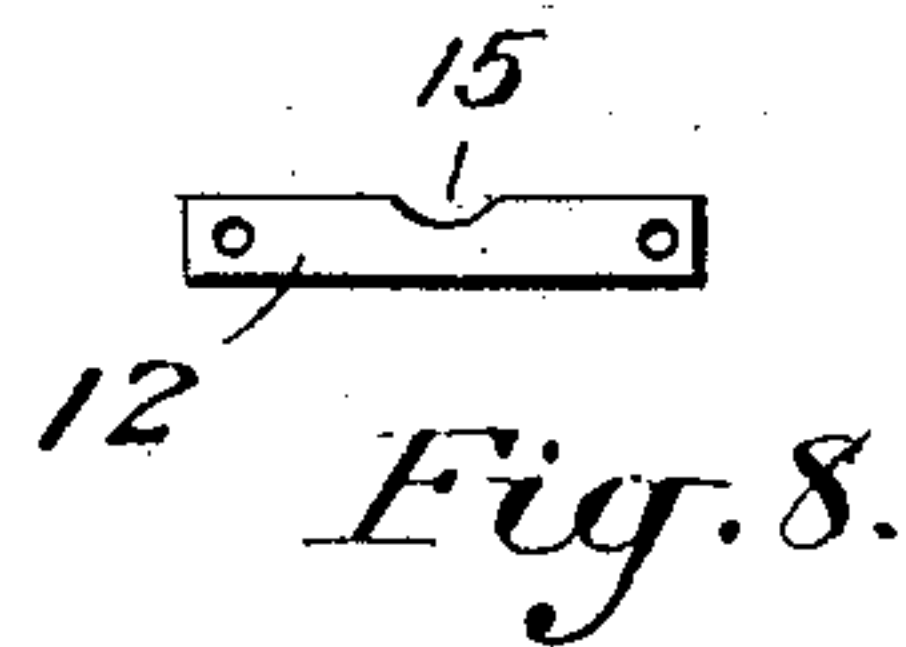


Fig. 8.

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UNITED STATES PATENT OFFICE.

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TRACK-SANDER.

SPECIFICATION forming part of Letters Patent No. 763,543, dated June 28, 1904.

Application filed June 17, 1903. Serial No. 161,817. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM M. DEAL, a citizen of the United States, and a resident of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain Improvements in Track-Sanders, of which the following is a specification.

This invention relates to improvements in devices for sanding the tracks of railways; and the objects of the improvements are, first, to provide a track-sander cheap and simple in construction and which will act effectively with wet as well as dry sand, and, second, to so construct said sander that it will permit the passage from it of stones or other hard substances too large to pass therefrom through the mechanism for discharging the sand.

The invention consists in the construction and combination of the various parts, as hereinafter fully described and then pointed out in the claims.

In the accompanying drawings, which form a part of this specification, Figure 1 is a side elevation showing the relation of the track-sander to the car-wheel; Fig. 2, a similar view showing the mechanism wherethrough the feed-cylinder is actuated; Fig. 3, a vertical section transversely of the feed-cylinder; Fig. 4 a top view, and Fig. 5 a section, of the device, taken longitudinally of the feed-cylinder. Fig. 6 is a perspective view of the feed-cylinder; Fig. 7, a side view illustrating the relation of the ratchet-wheel to the feed-cylinder, and Fig. 8 a side view of one of the journal-bearings of the cylinder-shaft.

Similar numerals indicate like parts throughout the several views.

Referring to the details of the drawings, 1 indicates a rail of a track; 2, a car-wheel; 3, the sander-case, and 4 the hopper, from which material passes to the sanding device.

In sander-case 3 is a cylinder-chamber provided with side walls 5, having the upper edges thereof bearing against the upper edges of side walls 6 of said sander-case, whence said side walls 5 are inclined downward toward and below the top of the periphery of the feed-cylinder to be described, and the lower ends of side walls 5 stand away from said

periphery. To the outer faces of side walls 5 of the cylinder-chamber are secured spring-plates 7 of the length of said side walls 5 and having lower sections 8 thereof depending below the lower edges of said side walls 5.

The end walls 9 of the cylinder-chamber conform in outline with that of the ends of side walls 5, but on the lower edges thereof are formed semicircular lips 10, having the same radius as that of said feed-cylinder. Extending upward from the bottom of lips 10 are slots 11, transversely of and somewhat below the semicircular upper ends whereof are removably located bearing-plates 12. In assembling the parts, bearing-plates 12 being removed or turned so as to uncover slots 11, the feed-cylinder 13 is pushed upward into the cylinder-chamber, the journals 14 thereof passing up slots 11 until above the position occupied by bearing-plates 12, when said bearing-plates are secured in their normal positions with the grooves 15 in their upper edges engaging the lower halves of journals 14. In and longitudinally of feed-cylinder 13 are formed pockets 16, the side walls 17 of which lie in planes of radii of said cylinder, and the end walls 18 also have an outwardly-flaring slope. The feed-cylinder forms the bottom of the cylinder-chamber, and on one of the journals thereof is a ratchet-wheel 19. On the same journal and outside of ratchet-wheel 19 is rigidly secured a lever 20, having pivoted on the upper end a pawl 21, that engages teeth 22 of said ratchet-wheel. The lower end of lever 20 has pivoted to it a connecting-rod 23, wherethrough said lever is actuated. The number of teeth on the ratchet-wheel is the same as the number of the pockets in the feed-cylinder, and the relation of said ratchet-teeth to the pockets is such that with each movement of lever 20 one of said pockets discharges its contents onto the rail beneath the sander.

To the inner faces of the depending sections 8 of spring-plates 7 are shoes of chilled iron or other hard substance that bear against the feed-cylinder and prevent the wearing away of the springs, and these shoes extend the entire length of the faces of the spring-

plates. The shoe 24 on the upgoing side of the feed-cylinder extends down to about the horizontal diameter of said cylinder, and the shoe 25 on the downgoing side extends below said diameter and to the point at which the pockets are to begin discharging their loads. By the use of these springs stones or other masses that project from the pockets in the feed-cylinder are prevented from choking the mechanism.

The sand is fed to the rail by power applied to lever 20 through connecting-rod 23, and the amount so fed is determined by the rapidity of movement of said connecting-rod, each throw of the lever causing the discharge of the contents of one of the pockets of the feed-cylinder.

I do not confine myself to the details of construction herein shown and described, as it is obvious that many alterations may be made therein without departing from the principle and scope of this invention.

Having thus described my invention, what I claim as new, and desire to obtain by Letters Patent, is—

1. The combination, in a track-sander, of a cylinder-chamber, a revoluble feed-cylinder in the cylinder-chamber and having a series of pockets disposed around the periphery thereof, a ratchet-wheel on a journal of the feed-cylinder and having the same number of teeth as there are pockets in the feed-cylinder, a lever, and a pawl on the lever and engaging the ratchet-wheel.
2. The combination, in a track-sander, of a cylinder-chamber, a revoluble feed-cylinder in the cylinder-chamber and having a series of pockets disposed around the periphery thereof, a ratchet-wheel on a journal of the feed-

cylinder, a lever, and a pawl on the lever and engaging the ratchet-wheel, the teeth on the ratchet-wheel being so disposed that each time one of said teeth is acted on by the pawl one of said pockets discharges its load.

3. The combination, in a track-sander, of a cylinder-chamber, a revoluble feed-cylinder therein, and expansible walls bearing against the sides of the feed-cylinder.

4. The combination, in a track-sander, of a cylinder-chamber, a revoluble feed-cylinder in the bottom thereof, and spring-plates pressing toward the part of the feed-cylinder below the stationary walls of the cylinder-chamber.

5. The combination, in a track-sander, of a cylinder-chamber, a revoluble feed-cylinder in the bottom thereof, and spring-plates attached to the side walls of the cylinder-chamber and pressing toward the part of the feed-cylinder below the stationary walls of the cylinder-chamber.

6. The combination, in a track-sander, of a cylinder-chamber, a revoluble feed-cylinder in the bottom thereof, spring-plates pressing toward the part of the feed-cylinder below the stationary walls of the cylinder-chamber, and shoes on the bearing sides of the spring-plates.

7. The combination, in a track-sander, of a cylinder-chamber, a revoluble feed-cylinder in the bottom thereof, spring-plates pressing toward the part of the feed-cylinder below the stationary walls of the cylinder-chamber, and shoes of chilled metal on the bearing sides of the spring-plates.

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Witnesses:

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