

No. 754,899.

PATENTED MAR. 15, 1904.

J. W. SEAVER & G. H. HULETT.
DISCHARGING DEVICE FOR DUMP CARS.

APPLICATION FILED JUNE 12, 1903.

NO MODEL.

2 SHEETS—SHEET 1.

Fig. 1.

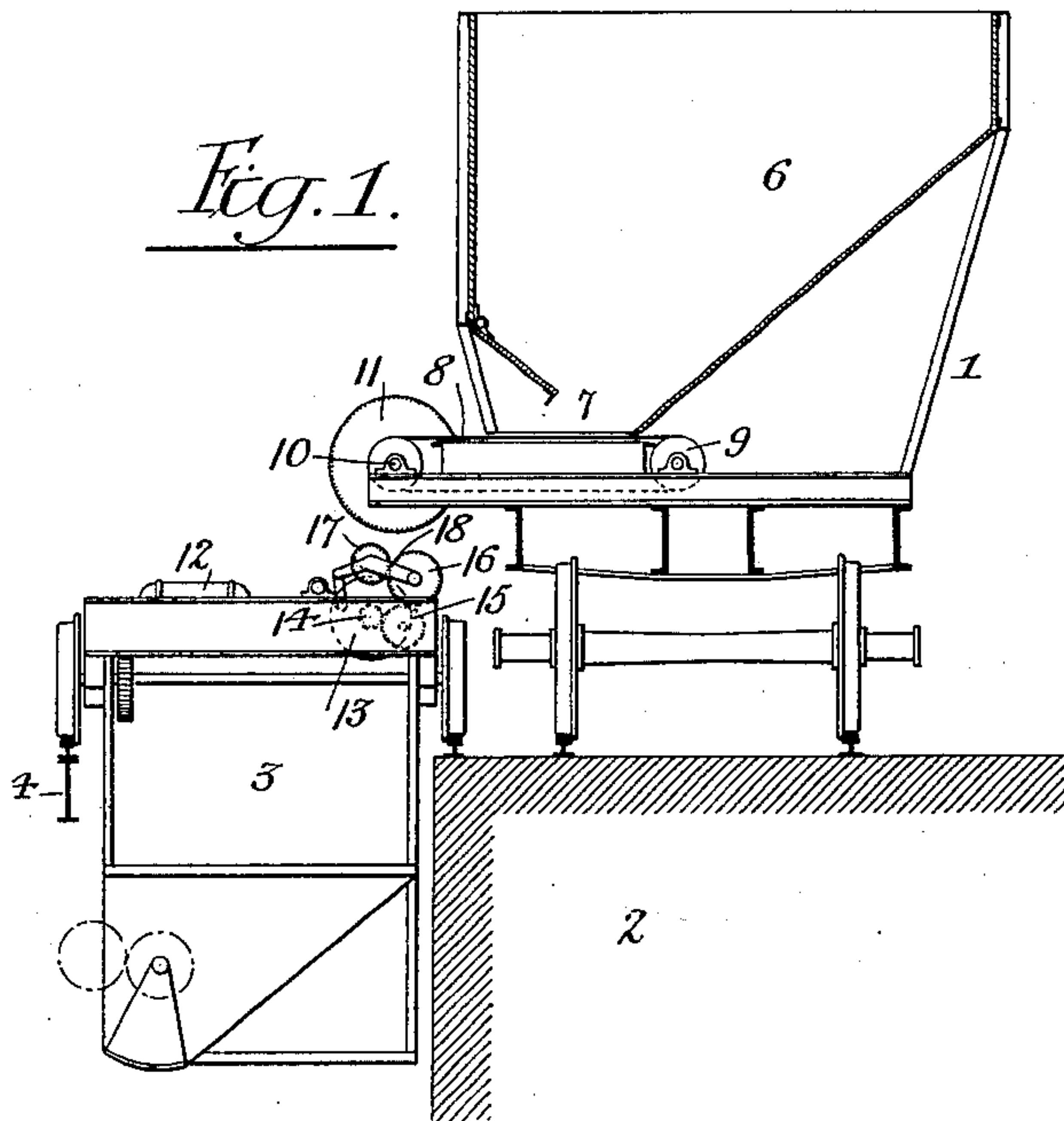


Fig. 5.

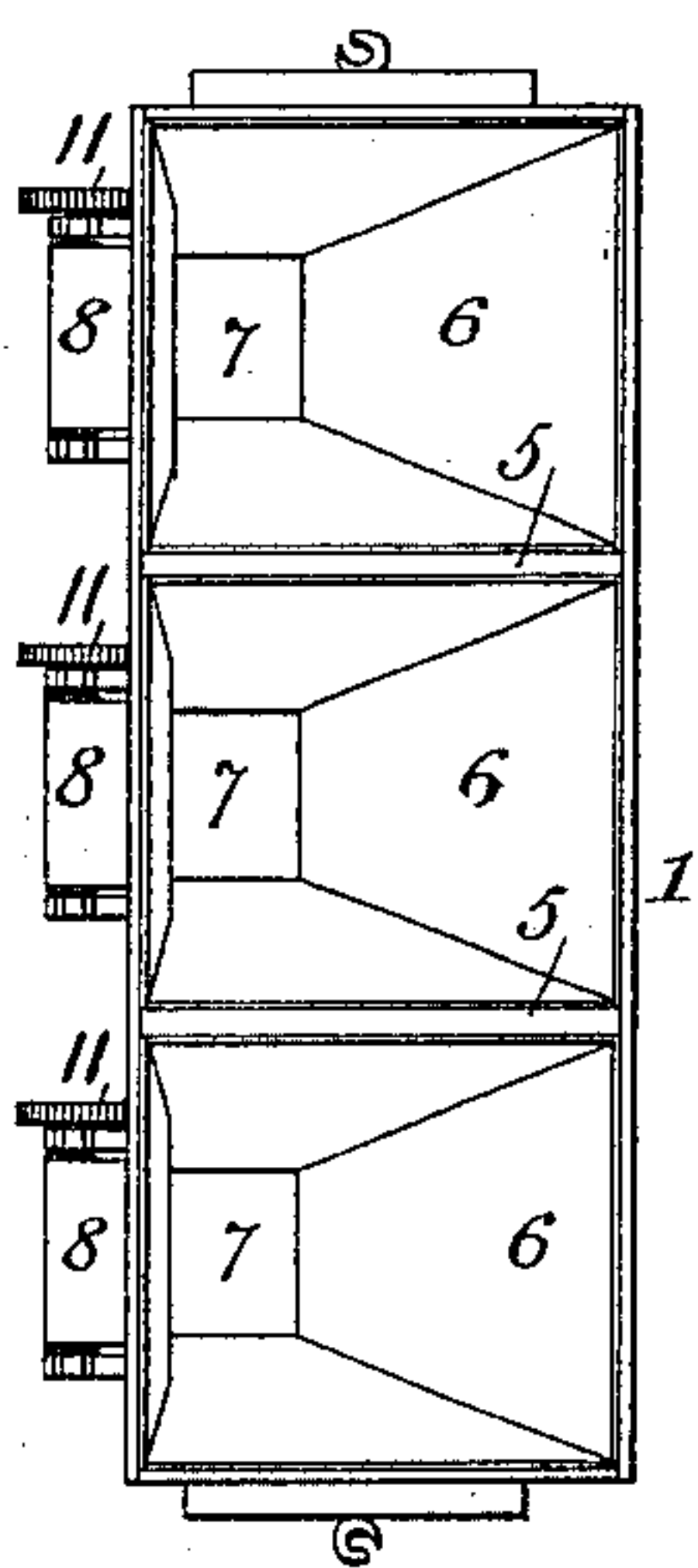
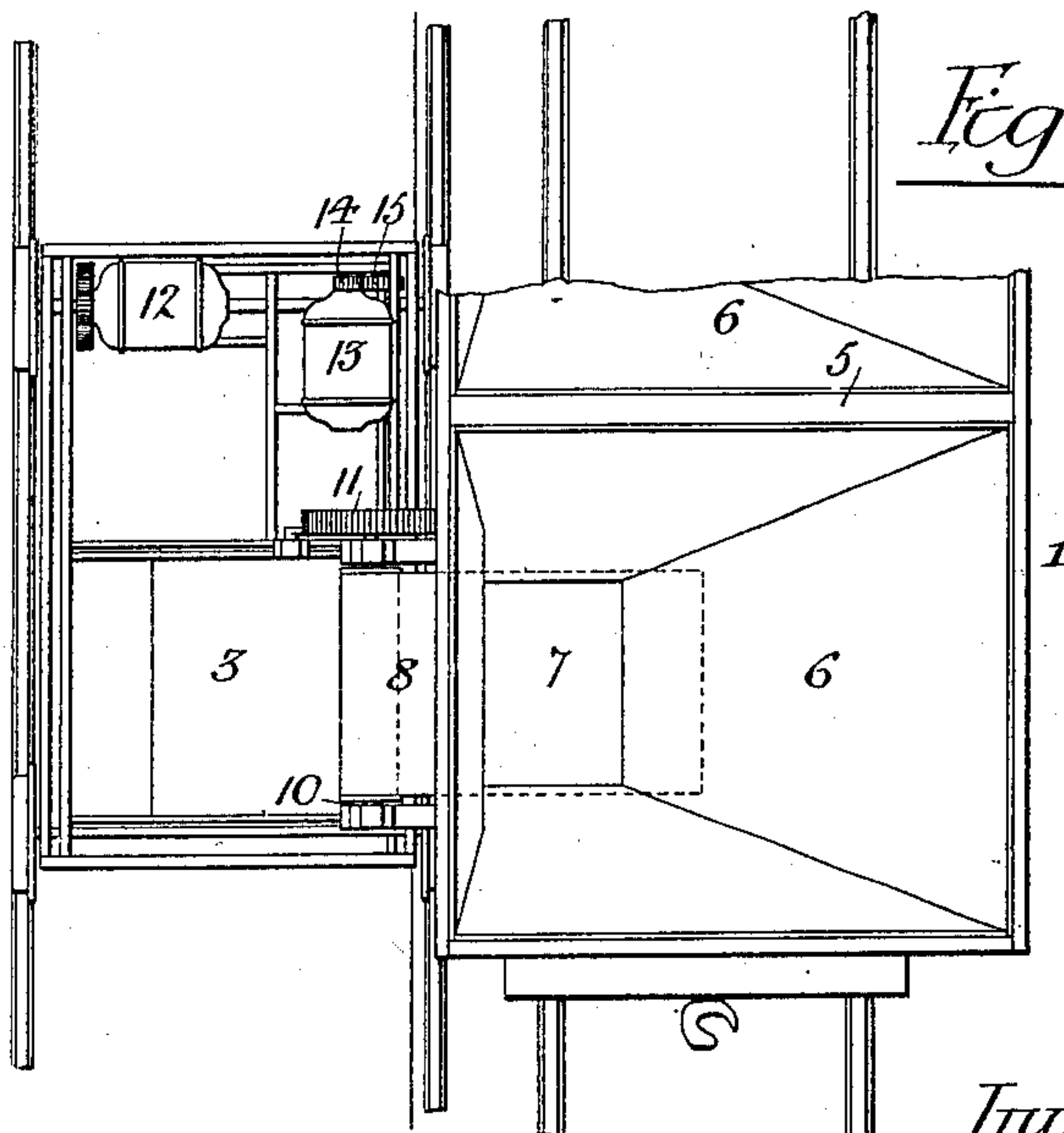


Fig. 2.



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2 SHEETS—SHEET 2.

Fig. 3.

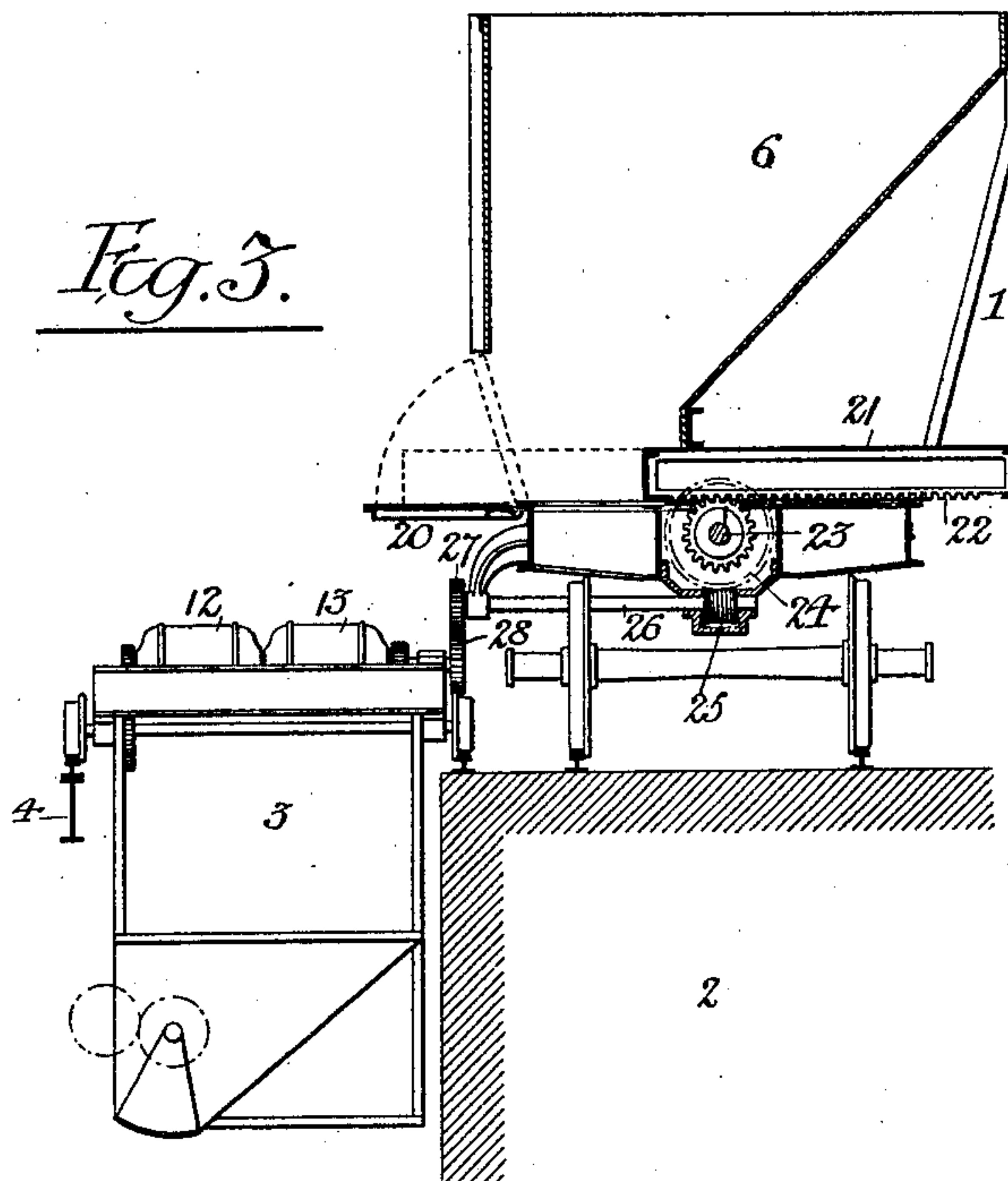


Fig. 6.

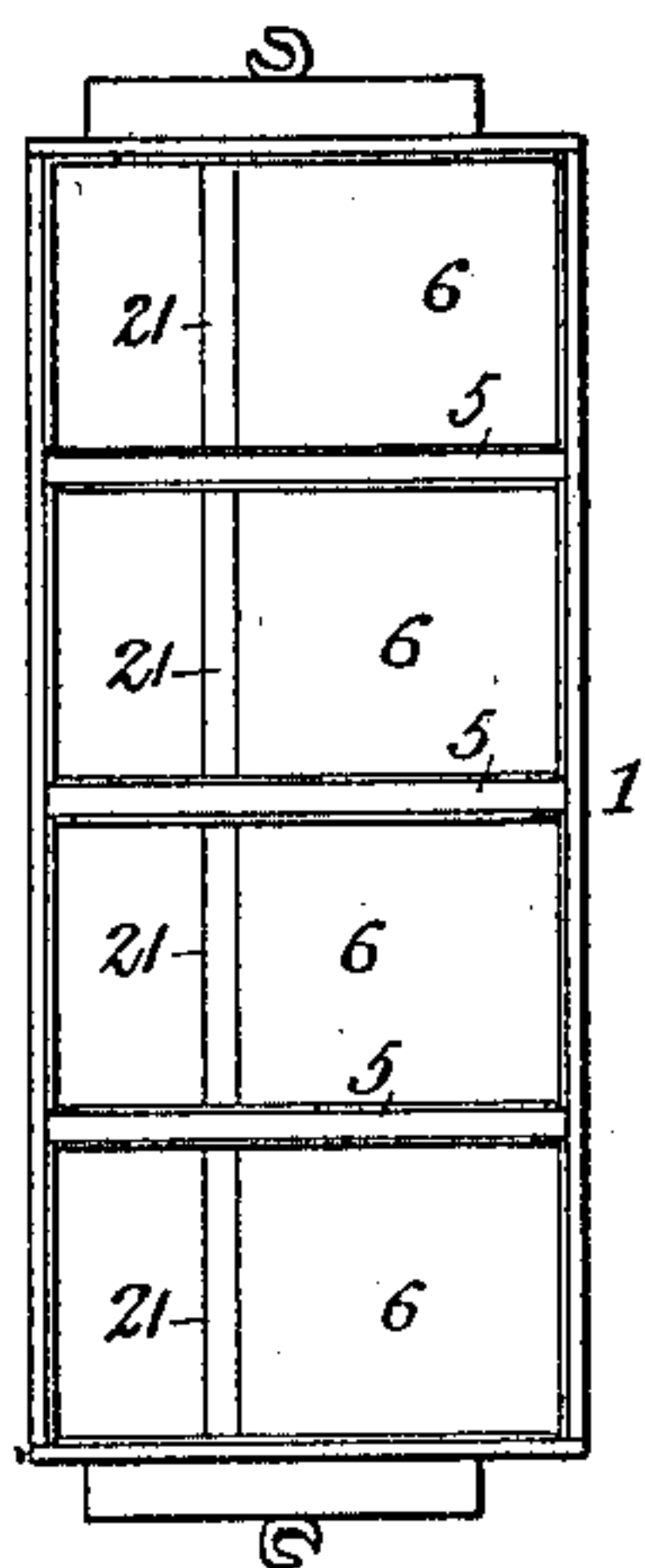
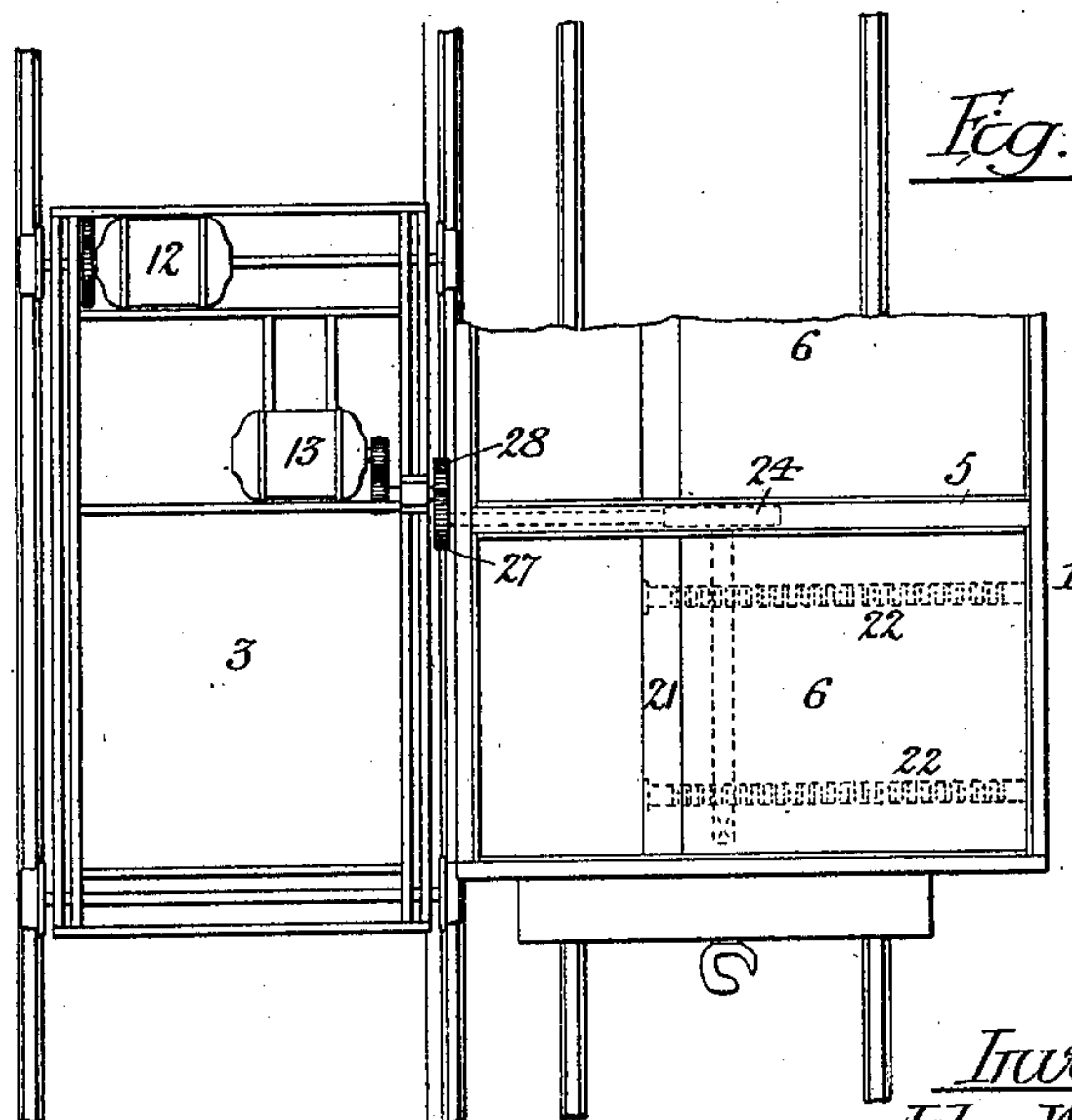


Fig. 4.



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UNITED STATES PATENT OFFICE.

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DISCHARGING DEVICE FOR DUMP-CARS.

SPECIFICATION forming part of Letters Patent No. 754,899, dated March 15, 1904.

Application filed June 12, 1903. Serial No. 161,197. (No model.)

To all whom it may concern:

Be it known that we, JOHN W. SEAVER and GEORGE H. HULETT, both citizens of the United States, and residents of Cleveland, Ohio, have invented certain Improvements in Discharging Devices for Dump-Cars, of which the following is a specification.

The object of our invention is to so construct a dump-car or movable bin and to so combine the same with dumping or discharging mechanism that any desired portion of the contents of the car can be discharged therefrom independently of the remaining portions, a single set of operating mechanism, however, being available for actuating all of the independent discharging devices. These objects we attain in the manner hereinafter set forth, reference being had to the accompanying drawings, in which—

Figure 1 is a transverse section of a dump-car and discharging mechanism therefor in accordance with our invention. Fig. 2 is a plan view of the same. Fig. 3 is a view similar to Fig. 1, but illustrating another form of discharging device for the car. Fig. 4 is a plan view of Fig. 3. Fig. 5 is a reduced plan view of the car shown in Fig. 1, and Fig. 6 is a reduced plan view of the car shown in Fig. 3.

Referring first to Figs. 1, 2, and 5 of the drawings, 1 represents a car having a truck adapted to rails upon an elevated platform or support 2, in front of which is adapted to run a traveling lorry 3, the wheels of the latter being mounted upon a rail on the platform 2 and upon another rail carried by a beam 4, which is supported outwardly beyond the platform 2, but extends longitudinally in line therewith. The car 1 is divided by a number of partitions 5 into a series of bins 6, each having sloping walls which serve to direct its contents to an outlet-opening 7 at the bottom of the bin, and each bin has a discharging device consisting of an endless belt or apron 8, running upon drums 9 and 10, suitably mounted in bearings on the fixed framework of the car, the shaft of the outer drum having a spur-wheel 11, which can be rotated by power applied thereto, so as to cause the belt 8 to travel forwardly, and there-

by carry with it the grain, ore, coal, or other granular contents of the bin 6. The traveling lorry 3 has an electric or other motor 12, suitably geared to one of its axles, so that the said lorry can be traversed longitudinally in front of the platform or support 2, and consequently along the length of a dump-car or a number of dump-cars on said support. The lorry also has another electric or other suitable motor 13, which by means of a system of spur-gears 14, 15, and 16 drives a spur-pinion 17, mounted in a swinging frame 18 on the lorry, so that said spur-wheel 17 can be moved into and out of gear with the spur-wheel 11 of either of the discharging devices on the car 1. When, therefore, the lorry has been moved into line with the discharging device of one of the bins of the car or the latter has been moved into line with the lorry, the pinion 17 can be thrown into gear with the spur-wheel 11 and the delivery belt or apron 8 can be operated so as to discharge the contents of the bin into a suitable receptacle upon the lorry, or if it is not desirable to load the latter the contents of the bin can be discharged into any other available receptacle, and the discharging devices of each separate bin 6 of the car 1 can be thus operated so as to empty said bins in succession.

In that embodiment of our invention shown in Figs. 3 and 4 the character of the discharging devices of the dump-car is modified, each bin having at one side a swinging door 20, while at the bottom of each bin is located a reciprocating pusher or slide 21, which has on its under side racks 22, meshing with spur-wheels 23 on a shaft, which is also provided with a worm-wheel 24, the latter meshing with a worm 25 on a shaft 26, which is mounted in suitable bearings on the fixed frame of the car and has a spur-pinion 27 for engagement with a spur-wheel 28, movably mounted on the traveling lorry 3 and operated by an electric or other motor 13 thereon, as before.

By reason of our invention we can employ compartment cars or bins and can provide for the independent discharge of the contents of each compartment with the use of but one set

of operating mechanism, thereby simplifying and cheapening the construction of this class of cars, while the use of a traveling lorry permits of a wide range in the distribution of the material.

Having thus described our invention, we claim and desire to secure by Letters Patent—

1. The combination of a dump-car divided into a series of bins each having a discharging device independent of the others, and a lorry having driving mechanism constructed to engage either of said discharging devices by a movement either of the car or lorry, substantially as specified.

2. The combination of an elevated platform or support, a dump-car mounted so as to travel

thereon, and a lorry mounted so as to travel in front of said elevated platform or support, said dump-car having a series of bins each with independent discharging device, and said traveling lorry having operating mechanism constructed to engage with either of said discharging devices, substantially as specified.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

JOHN W. SEAVER.
GEORGE H. HULETT.

Witnesses:

C. W. COMSTOCK,
C. H. ALTENHOF.