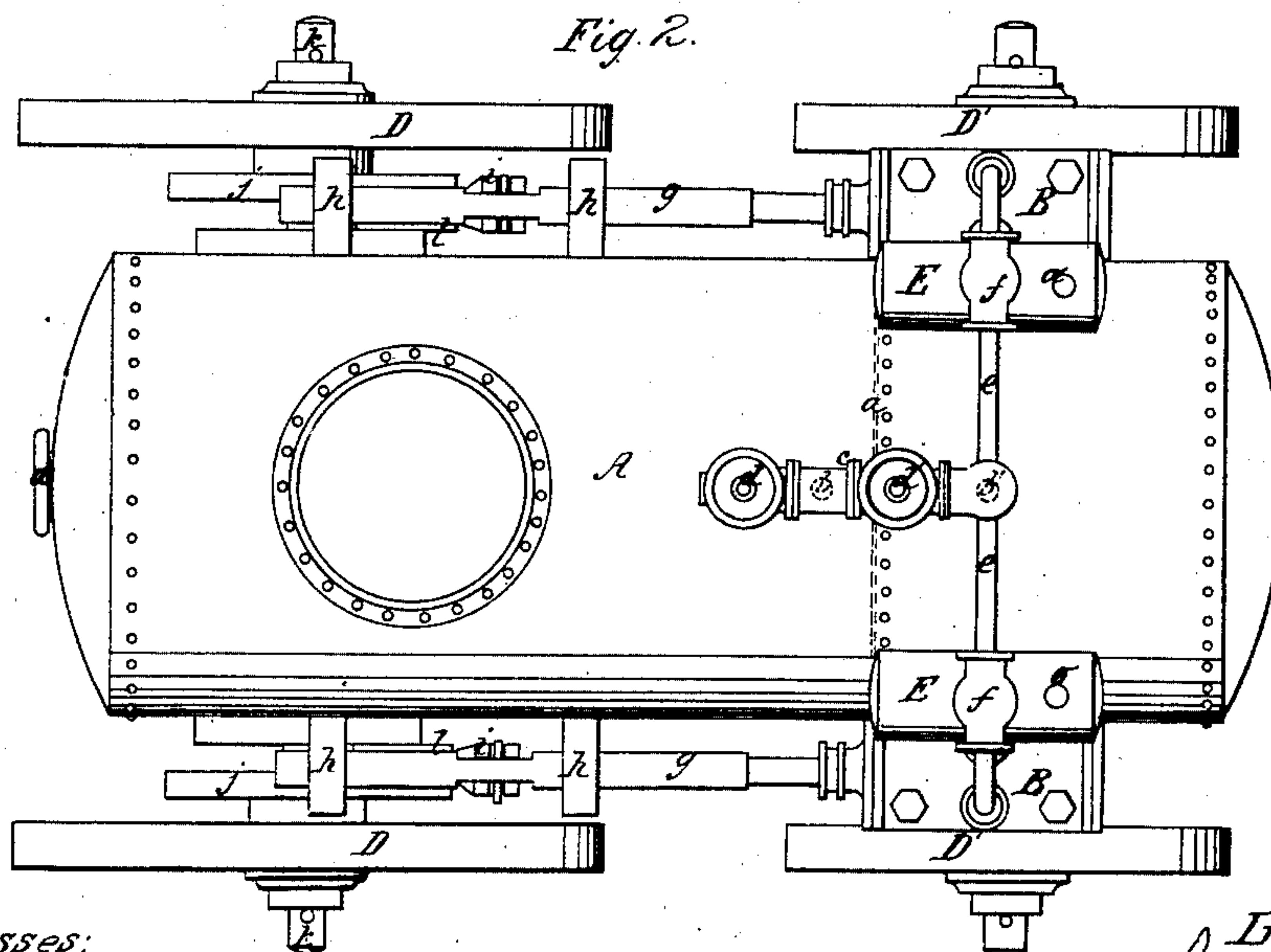
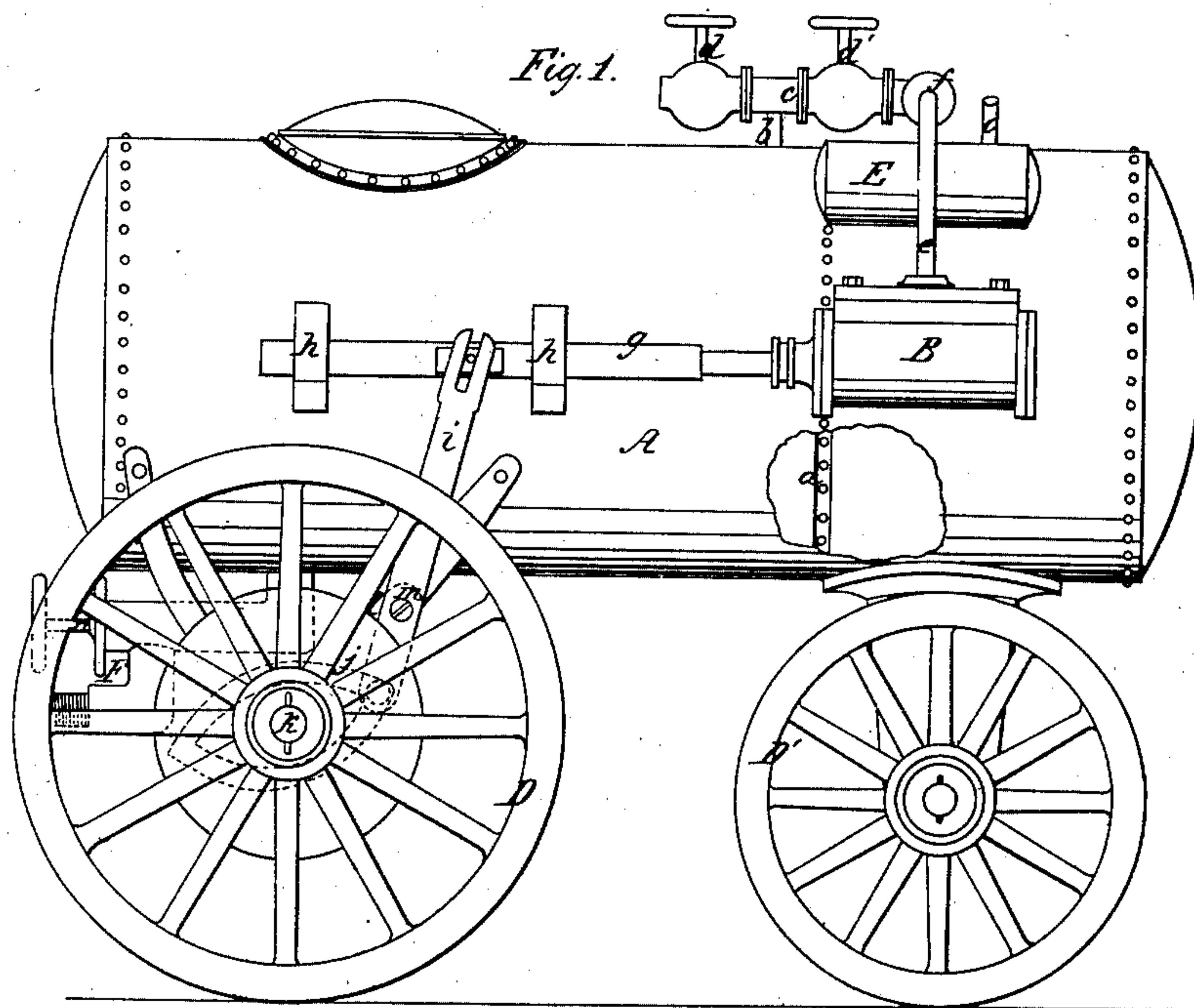


Specification in this is
is not in print.

J. P. WALTER
VACUUM TANK.

No. 35,189.

Patented May 6, 1862.



Witnesses;
James Caird
R. Hawley

Inventor;
J. P. Walter

UNITED STATES PATENT OFFICE.

JOSEPH P. WALTER, OF BROOKLYN, NEW YORK.

VACUUM-TANK.

Specification of Letters Patent No. 35,189, dated May 6, 1862.

To all whom it may concern:

Be it known that I, JOSEPH P. WALTER, of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Vacuum-Tanks; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming a part of this specification, in which—

Figure 1, represents a side elevation of my invention. Fig. 2, is a plan or top view of the same.

Similar letters of reference in both views indicate corresponding parts.

It is a common practice particularly in large cities to use tanks from which the air has been exhausted, for the purpose of clearing out privies, &c., by connecting one of said tanks with the privy by means of a tube or hose and opening a suitable stop cock or valve so that the contents of the privy are forced into the tank by the atmospheric pressure.

When the tank has thus been filled, it is taken to the dumping place and discharged and in order to renew the operation, it has now to be taken back to the yard or station in order to be exhausted by suitable machinery provided for this purpose, at a great expense of time and labor.

The object of my invention is to save the time required to carry each tank back to the yard or station, and also the expensive machinery required for exhausting the air, and the invention consists in the application to each tank of one or more air pumps, which are operated by a working beam receiving its motion from an eccentric attached to one of the wheels of the truck supporting the tank, in such a manner that the air from the tank can be exhausted, while the same is driven through the streets and that each tank when emptied can be driven back directly for a new charge without interruption.

It consists also in the arrangement of one or more reservoirs containing suitable acids or chemicals in combination with said air pump and with the vacuum tank in such a manner, that the nauseous gases exhausted from the tank, after the same has been discharged, are forced through said acid or chemicals, thereby depriving them of the bad smell which otherwise would render it

a nuisance to exhaust the tank in the public streets of a city.

To enable others skilled in the art to make and use my invention, I will proceed to describe it.

The tank A, is made of boiler iron sufficiently strong to sustain the pressure of the atmosphere with perfect safety and of any desirable size. It is divided in two compartments by means of a vertical partition *a*, one compartment to contain the fecal matter and the other the gases contained in privies, thereby facilitating considerably the operation of the apparatus as has been fully described in the Letters Patent of I. Datchiy December 17th 1850. The two compartments of the tank communicate with each other and with the open atmosphere through pipes *b*, *b'*, *c*, and the communication may be opened or closed by stop cocks *d*, *d'*.

Secured to the sides of the tank A, are the air pumps B, from which pipes *e*, extend to the pipe *c*, which communicates through pipes *b*, *b'* with the interior of the tank as has been previously described, check valves *f*, inserted into the pipes *e*, facilitate the operation of the air pumps. The piston rods *g*, of the air pumps B, are guarded by brackets *h*, attached to the sides of the tank, and said air pumps are operated by means of working beams *i*, to which motion is imparted by cam grooves on eccentrics *j*.

The tank A, is supported by a truck which rests on wheels D, D', and from the axles *k*, of the wheels D, standards *l*, rise which form the bearings for the fulcrum pins *m*, of the working beams *i*. The eccentrics *j*, are firmly connected to and revolve with the wheels, D, so that in carrying the truck with the tank through the streets, the air pumps are set in motion by the action of the eccentrics *j*, and working beams *i*. It is obvious however that the connection between the air pumps and the wheels of the truck may be effected in any other convenient manner, and I do not want to confine myself to the particular means hereinbefore described for effecting this purpose.

The exhaust pipes of the air pumps B, pass into reservoirs E, which are secured to the sides of the tank and which contain sulfuric acid or any other suitable chemicals capable to neutralize the nauseous smell of the gases emanating from the tank after

the fecal matter contained therein has been discharged. Holes on pipes *o*, in the upper part of the reservoirs *E*, permit the disinfected gases to escape in the open air. A tube *F*, provided with a stopcock *n*, under the tank serves to fill the same and to discharge its contents as may be desired.

The operation is as follows: By the action of the air pumps *B*, the tank *A*, is exhausted and when arrived at the privy to be emptied the tube *F*, is connected with a stout hose which reaches down into the privy and by opening the stop cock *n*, the contents of the privy are forced into the tank, the fecal matter being collected in one and the gases in the other compartment. When the tank is filled the stop cock *n*, is closed and the hose is unscrewed and the tank is now driven to the dumping place. During this time the air pumps are disconnected. After the contents of the tank have been discharged the air pumps are connected with the eccentrics *j*, and while driving the tank back the gases and air contained in the same are exhausted so that when it arrives on the place of operation it is ready for a new action. The gases which are exhausted from the

tank by the action of the air pumps instead of being permitted to escape unobstructed into the open air, pass through the reservoir *E*, where they are completely disinfected so that their escape into the open atmosphere does not render objectionable the use of my tank in the public streets of a city.

Having thus fully described my invention what I claim as new and desire to secure by Letters Patent is:

1. The arrangement of one or more air pumps *B*, in combination with the wheels *D*, *D'*, eccentrics *j* and working beams *i*, or their equivalents and with the tank *A*, constructed and operating substantially in the manner and for the purpose herein shown and described.

2. The arrangement of one or more reservoirs *E*, containing suitable chemicals in combination with the air pumps *B*, and tank *A*, substantially as and for the purpose set forth.

JOS. P. WALTER.

Witnesses:

JAMES LAIRD,
W. HAUFF.