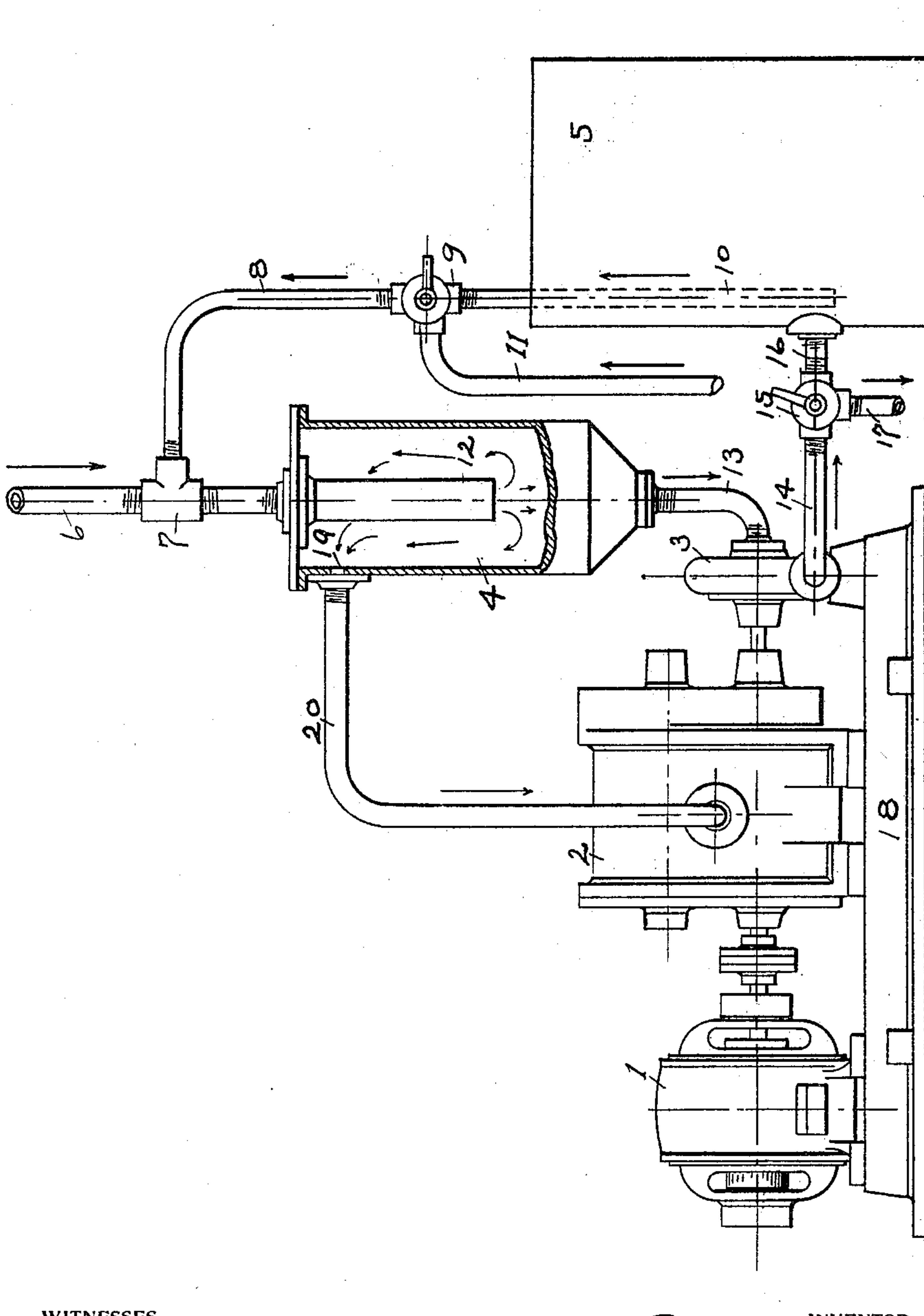


P. D. BREWSTER.
DUST COLLECTOR.
APPLICATION FILED AUG. 4, 1910.

993,343.

Patented May 30, 1911.

2 SHEETS—SHEET 1.



-FIG. 1-

WITNESSES

G. Backus
A. S. Brewster

INVENTOR

Percy P. Brewster

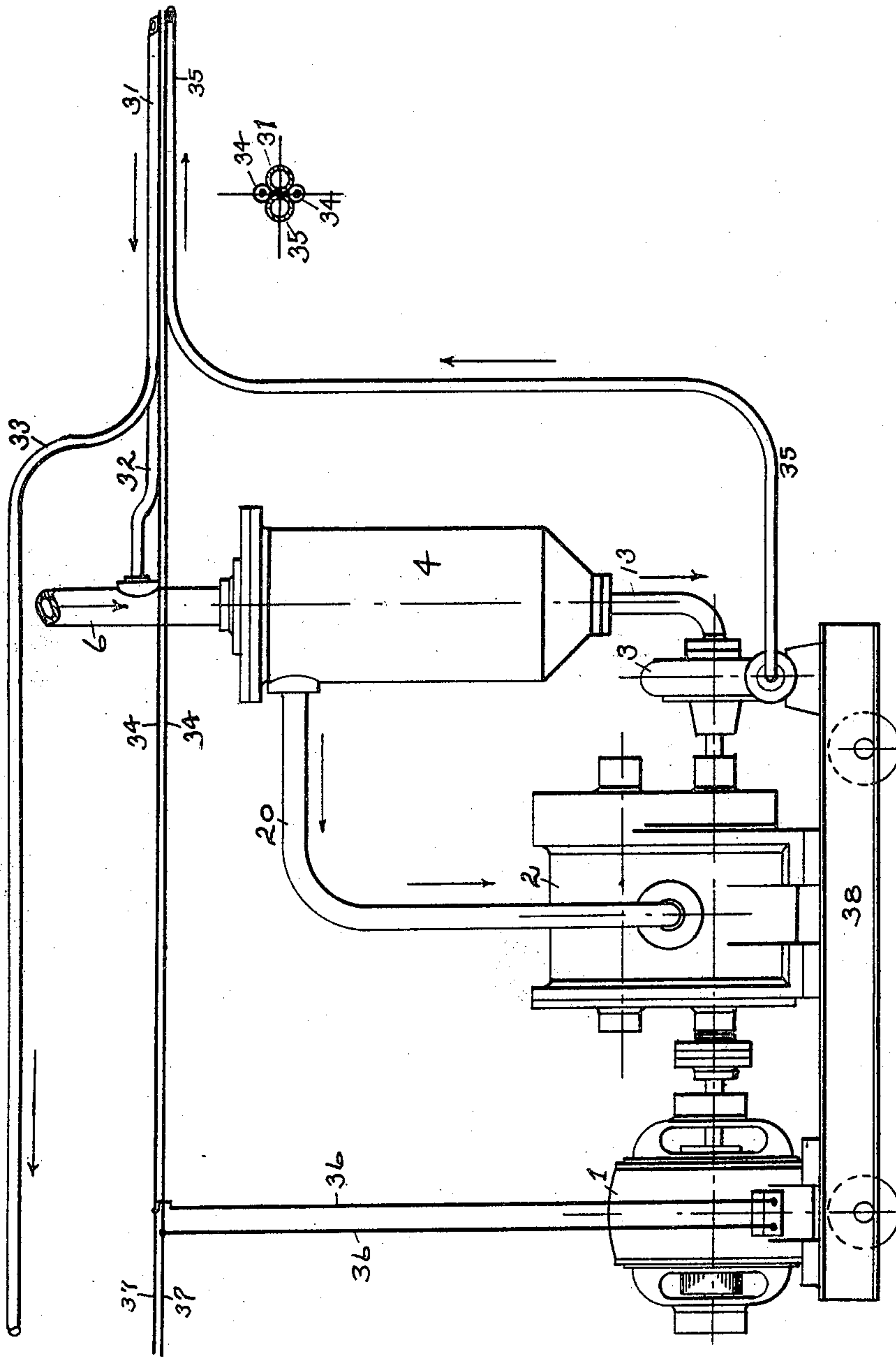
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—FIG. 2—

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UNITED STATES PATENT OFFICE.

PERCY D. BREWSTER, OF EAST ORANGE, NEW JERSEY, INVENTOR.

DUST-COLLECTOR.

993,342.

Specification of Letters Patent.

Patented May 30, 1911.

Application filed August 4, 1910. Serial No. 575,559.

To all whom it may concern:

Be it known that I, PERCY D. BREWSTER, a citizen of the United States, residing at East Orange, Essex county, New Jersey, have invented new and useful Improvements in Dust-Collectors, of which the following is a specification.

This invention relates to dust collectors such as are used in vacuum cleaning or scrubbing systems or in pneumatic conveyers of the class in which the separation is secured by means of water.

Referring to the accompanying drawings Figure 1 is a side elevation of the system with part of the separating chamber in section; Fig. 2 is a side elevation of a portable system of the same type.

In Fig. 1 pipe 6 conveying the air and dust discharges into the separating chamber 4, and pipe 20 connects the separating chamber 4 with the inlet of the vacuum pump 2, which is driven by motor 1. Pump 3 driven by motor 1 has its inlet connected with the separating chamber 4 by pipe 13, and its discharge by pipe 14 to hand-actuated valve 15 to pipe 16, leading into the water tank 5 or to waste pipe 17. Dust pipe 6 is connected by pipe 8 to the hand actuated valve 9 which connects pipe 8 to either pipe 10, which extends below the water level in tank 5 or to pipe 11 which is connected to a supply of water. The vacuum in pipe 6, caused by pump 2, draws water either from the tank or the fresh water supply pipe 11 into the dust pipe 6 and the water mixing with the air and dust converts the dust to "slush" which passes into the inlet of the water pump 3 through pipe 13. The water pump discharges the slush either to the tank or the waste pipe, while the air passes from outlet 19 of the separating chamber to the inlet of the vacuum pump 2. The base 18 may be mounted on suitable rollers or wheels and the tank 5 omitted in a portable type of this mechanism as shown in Fig. 3, the pipes 8 and 14, for supplying the fresh water and removing the dirty water may be replaced by two suitable hose.

The portable system, shown in Fig. 2, is intended for use with either vacuum cleaners or scrubbers where water and electricity are available, the system being supplied by two hose, one carrying clean water to the separating chamber and the scrubbing tool (if used), the other carrying away the dirty water and "mud" and the wires to carry

the electric current to the vacuum pump motor and, if necessary, to the scrubbing tool motor. Current is supplied to the system through the wires 34, 34 and water through the hose 31 which branches into two parts, one hose 32 delivering the water into the dust pipe 6 (as in Fig. 1), the other hose 33 may be used for supplying water to the scrubber. The dust is converted into "mud" and with the water, as in Fig. 2, and is led into the inlet of the water pump 3 and discharged by the pump through the hose 35 to a waste pipe or is disposed of in any suitable manner. For convenience the two hose and the electric wires may be bundled together. The electric wires 34, 34 are connected to the motor 1 through the leads 36, 36, while leads 37, 37 are adapted to be connected to the motor of the scrubbing tool, such as are shown in my patent application Serial Number 572,862 entitled "Vacuum scrubbing apparatus" or Serial Number 575,560 entitled "Floor scrubbers."

Having described my invention what I claim and desire to secure by Letters Patent, is—

1. A dust collector having a pipe adapted to carry the air and dust, means for introducing water into the air and dust while under the partial vacuum, means for producing the vacuum and separate means adapted to remove the water from under the partial vacuum.

2. A dust collector having a pipe adapted to carry the air and dust, means for introducing water into the said dust pipe, means for producing the vacuum and separate means for drawing the water and mud from the dust pipe before reaching the vacuum producing means.

3. A dust collector having a pipe adapted to carry the air and dust, a water tank, means for introducing water from the said water tank into the said dust pipe, means for producing the vacuum and separate means for drawing the water and mud from the dust pipe and discharging into the said water tank.

4. A dust collector having a pipe adapted to carry the air and dust, a water tank, a three way valve, with connections to the said water tank, the said dust pipe and to a supply of water, means for producing the vacuum, and means for drawing the water from under the partial vacuum and discharging the water through a three way

valve into the said water tank or into a waste pipe.

5. A dust collector having a pipe adapted to carry the air and dust, means for introducing water into the air and dust while under partial vacuum, means for producing the vacuum, a water pipe, and separate means for drawing the water from under the vacuum and discharging into the said water pipe.

6. A dust collector having a pipe adapted to carry the air and dust, a clean water pipe adapted to connect the said dust pipe with

a supply of water, a dirty water pipe, means for producing the vacuum and means for removing the water from under the vacuum and discharging into the dirty water pipe.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses, this 3d day of 20 August, 1910.

PERCY D. BREWSTER.

Witnesses:

G. BACKUS,

C. O'DONOGHUE.