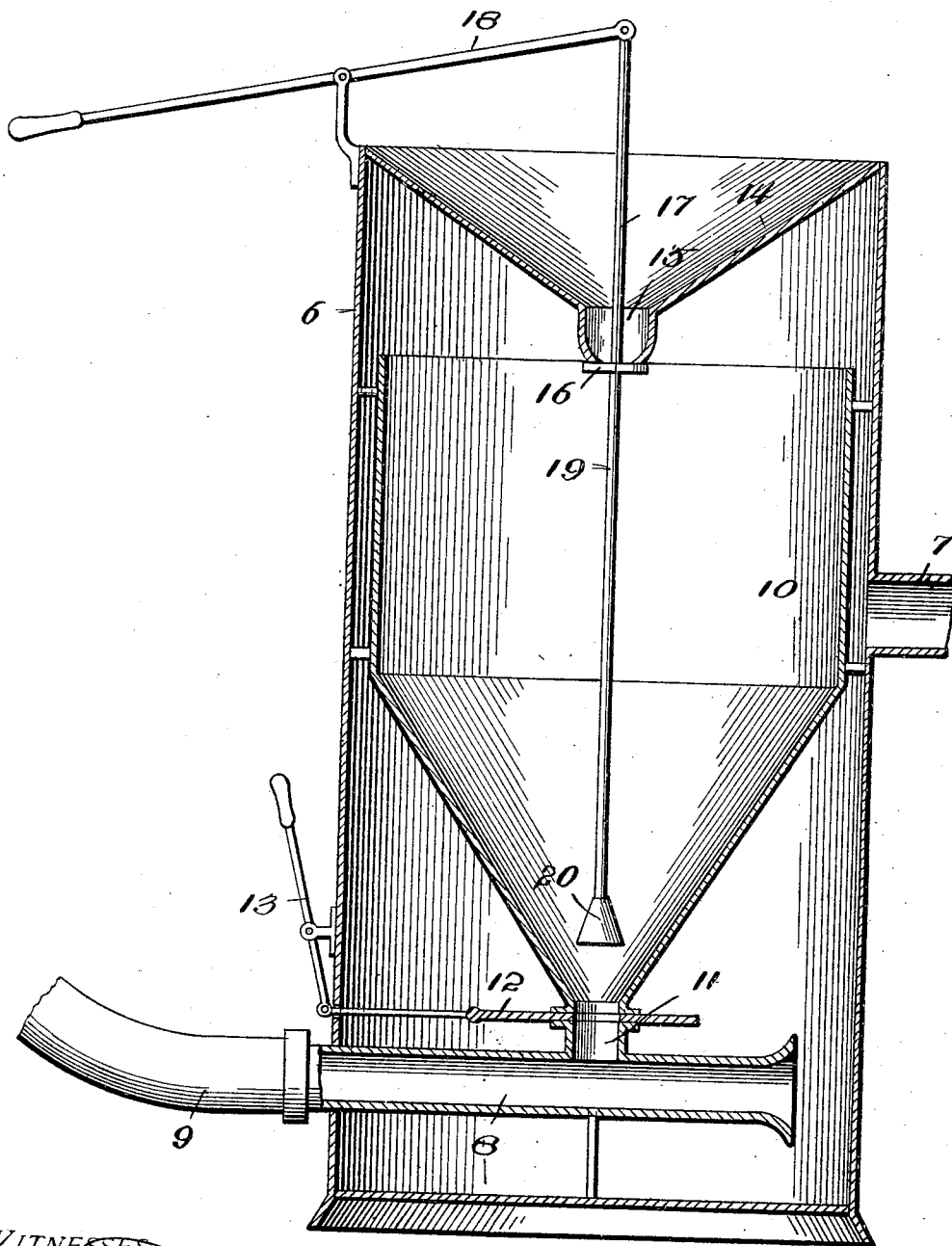


No. 799,808.

PATENTED SEPT. 19, 1905.

J. E. THOMPSON.
SAND BLAST APPARATUS.
APPLICATION FILED DEC. 30, 1904



WITNESSES.

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JOHN EDWARD THOMPSON, OF POMEROY, OHIO.

SAND-BLAST APPARATUS.

No. 799,808.

Specification of Letters Patent.

Patented Sept. 19, 1905.

Application filed December 30, 1904. Serial No. 239,033.

To all whom it may concern:

Be it known that I, JOHN EDWARD THOMPSON, a citizen of the United States, residing at Pomeroy, in the county of Meigs and State of Ohio, have invented new and useful Improvements in Sand-Blast Apparatus, of which the following is a specification.

This invention relates to sand-blast apparatus, and has for its object to improve and simplify the means for feeding the sand to the air-current, and especially for preventing or remedying the clogging of sand in the feed-valve.

The invention is illustrated in the accompanying drawing, which is a vertical sectional view of the apparatus.

Referring specifically thereto, 6 indicates an outer casing or chamber, usually made in the form of a cylindrical vessel, having an air-inlet pipe 7. The outlet-pipe is shown at 8, of known construction, leading to a hose 9. The outlet-pipe receives sand from a hopper-tank 10, supported within the outer casing, the feed from the hopper to the outlet-pipe 8 being through a valve 11 and controlled by a slide 12, operated by a lever 13 on the outside of the casing. The casing has a hopper-top, as at 14, to which sand may be delivered by any suitable means and from which the sand flows through the opening 15 into the sand-tank 10. The air-pressure exists in all parts of the casing, and it is necessary to provide means for closing the opening 15 when the air-pressure is on. This is done by a disk valve 16, the stem 17 of which is connected to a lever 18. This valve also controls the flow of sand from the hopper to the sand-tank, so that the latter may be refilled, as necessary. Owing to causes which need not be detailed here, the sand has a tendency to clog in the neck or valve 11 leading to the outlet-pipe, and to prevent this it is necessary that some means be provided to dislodge the sand when it begins to clog. I effect this object by a rod 19, forming a continuation of the valve rod or stem 17, said rod having at its lower end a bob 20 of proper size and shape to dislodge and knock out any sand which may tend to clog or arch in the neck 11. The bob is con-

nected to and operated by the same lever 13 which operates the valve at the top of the casing, and hence may be made to clean out the neck 11 every time the valve is opened to let in fresh sand. It is of a size and shape to substantially fill the neck, so that it will act as a cut-off whenever the valve 16 is opened, and thus render unnecessary the operation of the feed-lever 13.

In some machines heretofore constructed two hoppers have been used above the sand-tank with a valve at each. My arrangement dispenses with the use of one of these hoppers and also enables the sand-tank to be made much larger than would otherwise be the case.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a sand-blast apparatus, the combination with the blast-pipe, of a sand-tank having at the bottom a feed-valve which opens into the pipe, and a rod having a device at the lower end which may be worked up and down in the valve, and constructed to dislodge clogged sand therein.

2. In a sand-blast apparatus, the combination with a casing having an inlet-air pipe and an outlet-blast pipe, and a sand-supply opening in the top, of a sand-tank in the casing having a feed-valve into the outlet-pipe, and a rod, carrying a valve controlling said supply-opening, and extending into said feed-opening and movable to dislodge clogged sand therein.

3. In a sand-blast apparatus, the combination with a casing having suitable air-inlet and blast-outlet pipe connections, and a sand-supply opening in the top, of a sand-tank under said valve and having a feed-opening into the outlet-pipe, and a rod which works in the sand-tank and has a valve and a bob arranged to respectively open and close the supply-opening and the feed-opening, and vice versa.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN EDWARD THOMPSON.

Witnesses:

G. K. BRADFORD,
W. F. PRICE.