

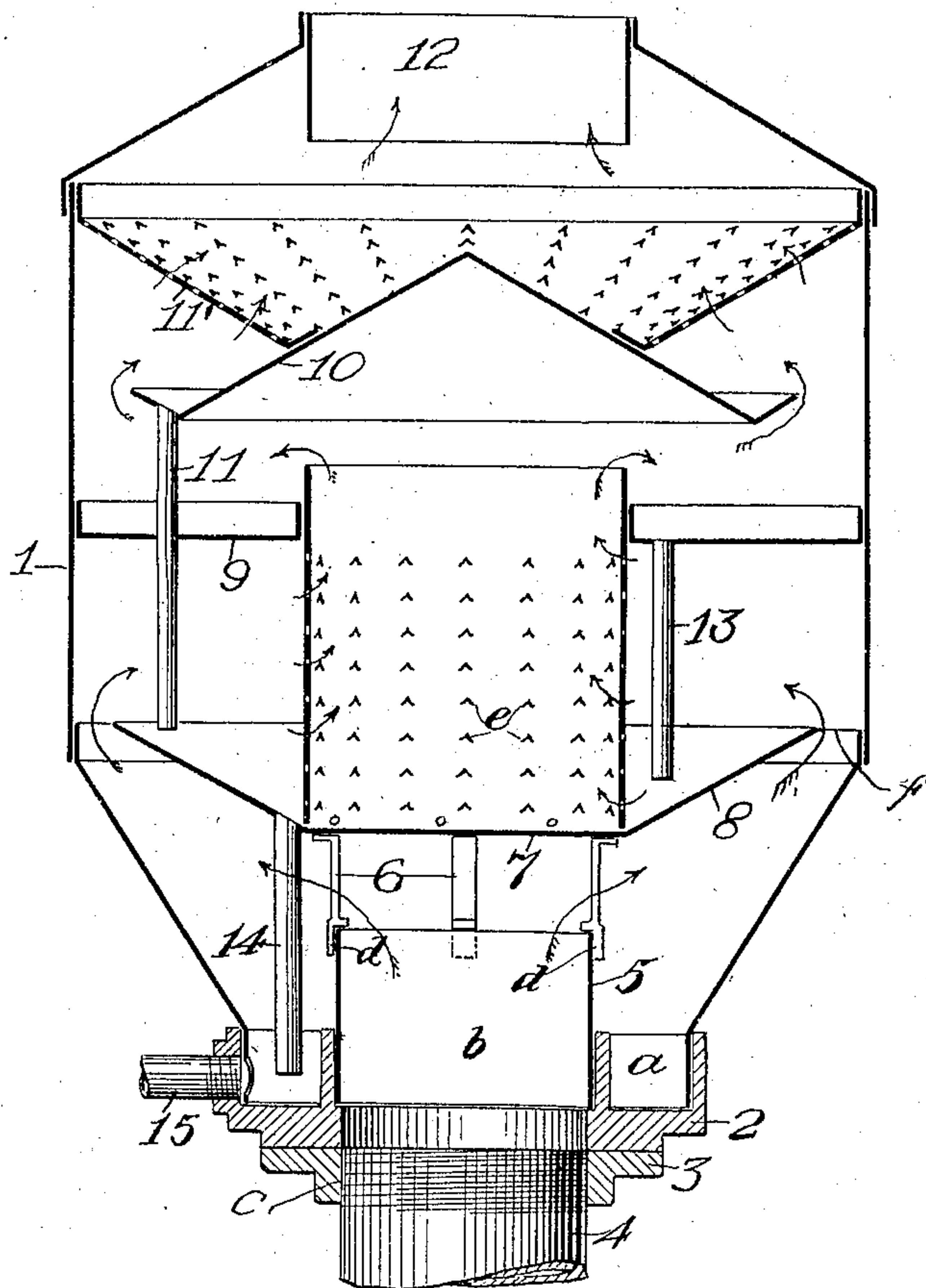
No. 768,627.

PATENTED AUG. 30, 1904.

J. E. SCHLIEPER.
EXHAUST HEAD.

APPLICATION FILED JAN. 5, 1903.

NO MODEL.



Witnesses:
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UNITED STATES PATENT OFFICE.

JOHN E. SCHLIEPER, OF ALLEGHENY, PENNSYLVANIA.

EXHAUST-HEAD.

SPECIFICATION forming part of Letters Patent No. 768,627, dated August 30, 1904.

Application filed January 5, 1903. Serial No. 137,876. (No model.)

To all whom it may concern:

Be it known that I, JOHN E. SCHLIEPER, a citizen of the United States, residing at Allegheny, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Exhaust-Heads, of which improvement the following is a specification.

My invention relates to devices to prevent excessive discharge of moisture from exhaust-steam pipes, commonly called "exhaust-heads;" and the object of my invention is to produce a device of this character which will remove or substantially remove hydrogen or moisture from discharged exhaust-steam; and to accomplish this purpose it consists of the novel construction and arrangement of parts hereinafter described, reference being had to the accompanying drawing, in which the figure indicates a central longitudinal section of my improved exhaust-head.

Like reference characters indicate like parts wherever they occur.

Referring to said drawing, 1 is a shell formed of sheet-metal sections, the lower end of which is contracted or of less diameter than the upper end and has secured thereto a ring 2, provided with an interiorly-disposed annular channel *a* and with a centrally-disposed orifice *b*. An annular ring 3 is secured to said ring 2 by bolts or in any other suitable manner, or it may be integral therewith, and is provided with a centrally-disposed opening *c*, which is screw-threaded and adapted to receive the threaded end of the steam-exhaust pipe 4 and is in direct alinement with the opening *b* in the ring 2.

5 is a tube or cylinder the lower end of which is secured in the orifice *b* in ring 2, the upper end thereof abutting against inwardly-projecting shoulders *d*, formed upon the lower ends, respectively, of the legs 6, the upper ends of which are bent horizontally and secured upon the bottom of the shell 7, the sides of which are provided with V-shaped perforations *e*. A dished pan 8 projects from around the base or bottom of said shell or cylinder 7, the outer edges thereof extending almost to the side walls of the outer shell, forming a contracted annular space *f*, through which the steam passes, as indicated by the

arrows. Immediately above said pan 8 is arranged the transverse partition 9, the outer and inner edges of which are upwardly flanged and secured to, respectively, the inner surface of the outer shell and the outer surface of the cylinder 7, whereby the steam in its upward passage is compelled to enter the cylinder 7 through the V-shaped perforations, as indicated by arrows, and is discharged therefrom through the open end thereof above the partition against the dished shield or screen 10, which is located above the said cylinder 7 and is supported by the vertically-disposed pipe or pipes 11, which are rigidly secured in the bottom of said shield and extend therefrom down through the partition and terminate immediately above the dished pan 8, being firmly secured in the partition, which is secured to the side walls of the shell. Immediately above the dished shield 10 is located a partition 11, which is shaped like an inverted cone and provided with numerous V-shaped perforations, through which the steam passes before it is discharged from the exit 12 of the exhaust-head. The dished pan 10, partition 9, and the pan 8, are provided with drip-pipes 11, 13, and 14, respectively, for the purpose of carrying the water formed by the condensation of the steam to the channel *a* in the ring 2 and thence exteriorly of the head through the pipe 15.

The operation of my device is as follows: Exhaust-steam being discharged therein through the exhaust-pipe 4 strikes or is impelled against the solid bottom of the pan 8 and passes therearound, enters the cylinder 7 through the V-shaped openings, passes there-through, and is discharged against the shield 10, eventually passing through the perforated partition 11 to the atmosphere. The moisture occasioned by condensation is carried from the different pans and partitions through the pipes secured therein to and through the discharge-pipe.

I claim as my invention and desire to secure by Letters Patent—

An exhaust-head comprising an outer shell, an imperforated dished pan partially inclosing the lower end of said shell, a perforated shell, one end of which is closed by said pan,

a baffle-plate inclosing the space below the upper open end of said perforated shell, a baffle-plate above the open end of said perforated shell, a perforated baffle-plate, and
5 means to drain the condensed steam from the outer shell.

In testimony whereof I have hereunto signed

my name in the presence of two subscribing witnesses.

JOHN E. SCHLIEPER.

In presence of—

CLARENCE A. WILLIAMS,
JAMES C. HERRON.