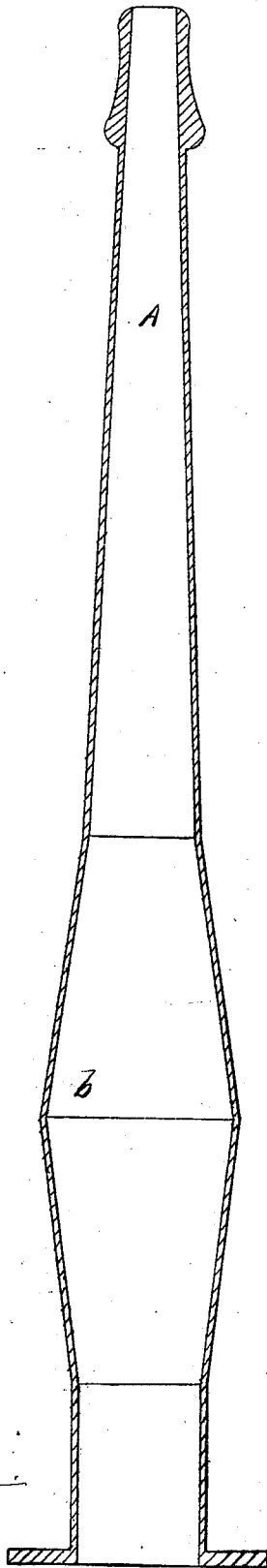


THOMAS WATSON.
Improvement in Nozzles.

No. 121,265.

Patented Nov. 28, 1871.



Witnesses

Geo. H. Strong
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UNITED STATES PATENT OFFICE.

THOMAS WATSON, OF NEVADA, CALIFORNIA.

IMPROVEMENT IN NOZZLES.

Specification forming part of Letters Patent No. 121,265, dated November 28, 1871.

To all whom it may concern:

Be it known that I, THOMAS WATSON, of the city and county of Nevada, State of California, have invented an Improved Hydraulic Nozzle; and I do hereby declare that the following description and accompanying drawing are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention or improvements without further invention or experiment.

My improvement in hydraulic nozzles relates more particularly to that class of nozzles which is employed for throwing a large stream of water from a hydraulic pipe for the purpose of hydraulic mining; and its object is to concentrate the stream inside of the nozzle so that it will be ejected in a solid body and in a direct line without twisting.

In order to more fully illustrate and explain my invention, reference is had to the accompanying drawing forming a part of this specification, in which—

A represents a hydraulic nozzle of the class above mentioned. This nozzle is constructed with an enlargement at some point between the base and small end of the nozzle so as to form a chamber, *b*, of greater diameter than the remainder of the nozzle. The location of this chamber should be a short distance back of the discharge end of the nozzle, so that the water which collects in it will serve to pack the stream which

passes directly through the nozzle, and, by avoiding the passage of the stream along a curved metallic surface, do away with the twisting of the stream, by which its efficiency is greatly impaired.

By this means I do away with the twisting of the stream without the use of the radial plates which are frequently used for this purpose, thereby avoiding the objection to the use of these plates, which is their liability of being knocked out or becoming displaced, or bent by the force of the stream, so that they have to be frequently repaired.

By using the chamber there will be no obstruction in the pipe to catch leaves and brush, which are often carried through by the stream.

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

A hose-pipe nozzle having a double truncated cone near its connection with the hose, and narrowing by a more obtuse line of contraction from the extremity of such truncated cone to the point of delivery, all as shown and described.

In witness whereof I have hereunto set my hand and seal.

THOMAS WATSON. [L. S.]

Witnesses:

GEORGE GRANT ALLAN,
CHAS. S. MATTROON.

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