No. 800,818. PATENTED OCT. 3, 1905.

L. M. PARRETT.

DUST ARRESTER FOR PNEUMATIC DRILLS AND REAMERS.

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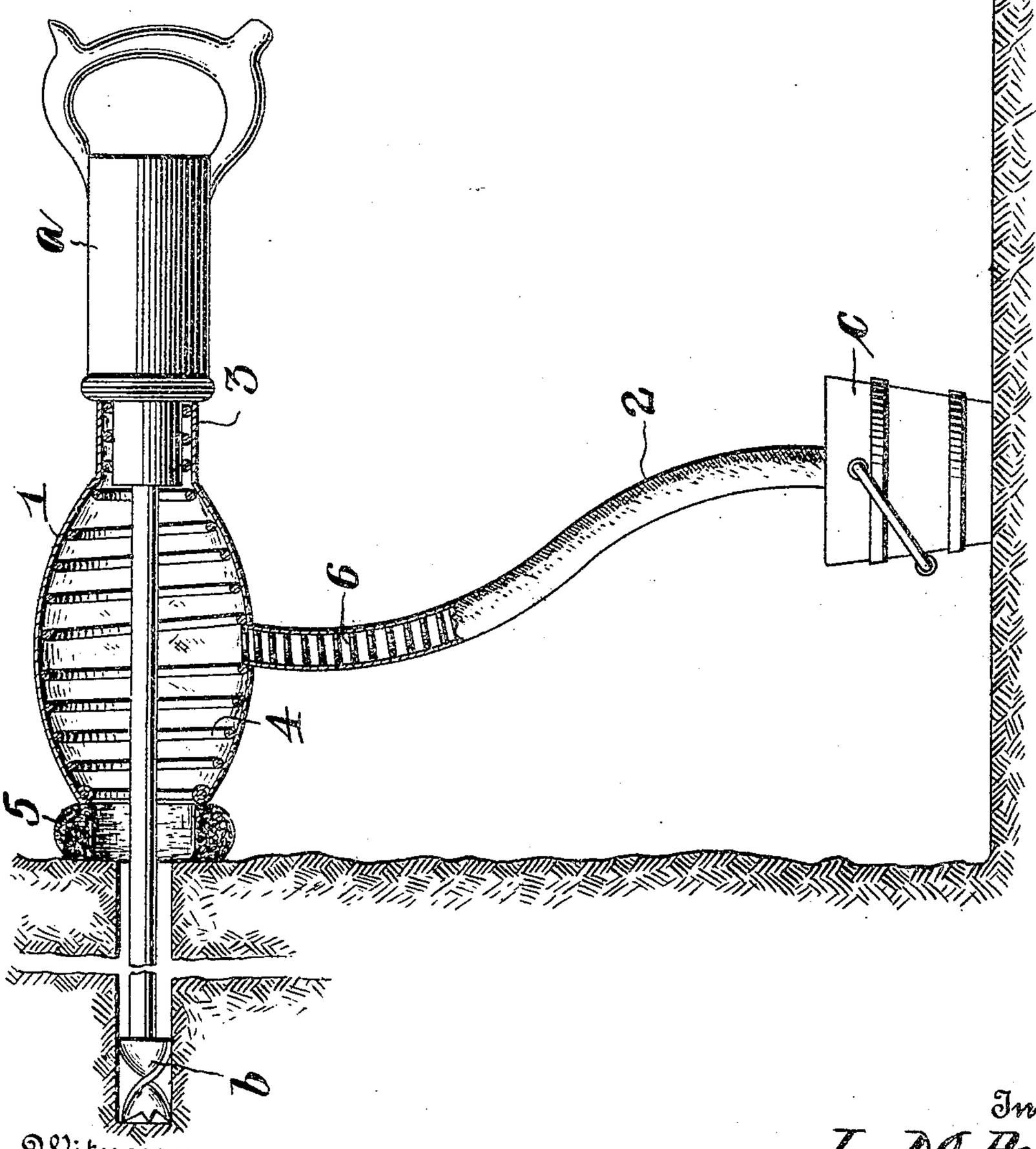

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UNITED STATES PATENT OFFICE.

LEE M. PARRETT, OF BUTTE, MONTANA.

DUST-ARRESTER FOR PNEUMATIC DRILLS AND REAMERS.

No. 800,818. Specification of Letters Patent. Patented Oct. 3, 1905.

Application filed June 19, 1905. Serial No. 266,009.

To all whom it may concern:

Be it known that I, LEE M. PARRETT, a citizen of the United States, residing at Butte, in the county of Silverbow and State of Montana, have invented certain new and useful Improvements in Dust-Arresters for Pneumatic Drills and Reamers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in dust-arresting devices for use in connection with pneumatic mining-drills and reamers to obviate the dust nuisance and enable the operators of the drills and reamers to work in comparative comfort; and it consists in the construction, combination, and arrangement of devices hereinafter described and claimed.

The accompanying drawing is a sectional view of a dust-arresting device embodying my improvements, showing the same in operative relation to a pneumatic drill.

My improved dust-arresting device comprises a body portion 1 and a discharge-tube 2 for the dust. The body portion is of substantially ovoidal form, provided at its inner end with a cylindrical neck 3, adapted to receive the outer end of the pneumatic hammer *a*. The said body portion, together with its neck, may be made of any suitable fabric, and the same is kept distended and its shape is preserved by a coiled spring 4, which is placed therein and extends from end to end thereof. At the outer end of the body portion, through which the drill, reamer, or other tool (indicated at *b*) extends, is secured an annular packing element 5, which may be made of any suitable fibrous or other material and which is sufficiently elastic to bear closely against the rock which is being drilled or reamed, so as to effect an air-tight connection between the body portion of the arrester and the rock, which air-tight connection is maintained by the pressure of the operator against the outer end of the pneumatic hammer or drill *a*. The spring 4 not only serves to preserve the shape of the body portion of the dust-arrester and render the latter efficient as a conduit for the dust produced by the action of the drill, reamer, or other tool in the hole in the rock, but it also acts as a cushion for the pneumatic hammer or drill and reduces the concussion thereof, as will be understood.

The discharge-tube 2 may be made of any suitable fabric and is preferably provided with an interior wire spring-coil 6 to prevent it from collapsing, the said wire spring-coil extending from end to end thereof.

When the pneumatic drill or tool is in operation, the lower end of the discharge-tube is submerged in water in a bucket or other vessel, such as indicated at *c*.

It will be understood that the dust which is forced into the body portion of the dust-arrester when the machine or tool is at work passes therefrom through the discharge-tube 2 into the water in the bucket or other receiving vessel *c*, and hence the dust is effectually prevented from flying and the operator is enabled to keep at work in comparative comfort.

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

The herein-described dust-arrester for pneumatic drills and reamers, comprising a flexible, substantially tubular body portion having an opening at one end to receive the outer end of the drill, an opening at the opposite end to clear the drill-bit, an annular packing at the last-mentioned end, for the purpose set forth, a coiled spring in the said body, bearing against the ends thereof and serving to prevent the flexible body from collapsing and also serving to cushion the drill or reamer, and a discharge-tube leading from one side of the said tubular body.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

LEE M. PARRETT.

Witnesses:
W. H. HAVILAND,
M. C. SMITTUS.