

C. MANTHEY.
MOTOR CASING FOR TUBE CLEANERS.
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1,055,197.

Patented Mar. 4, 1913.

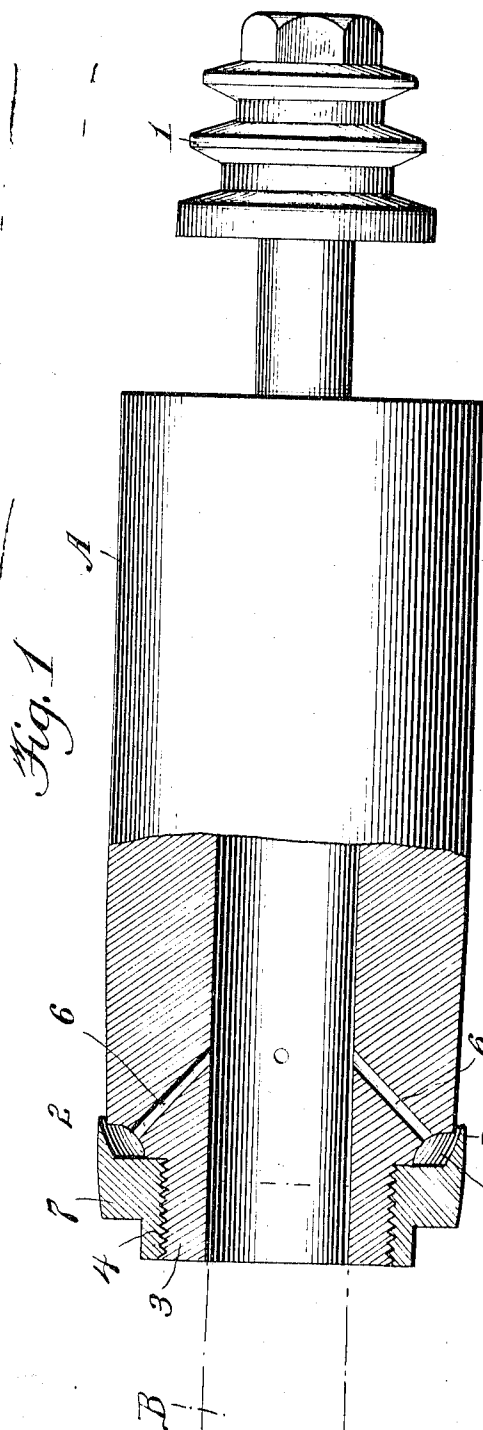


Fig. 1

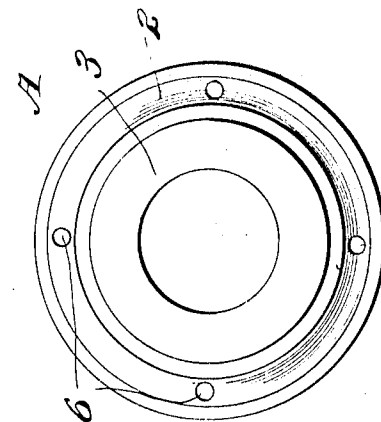
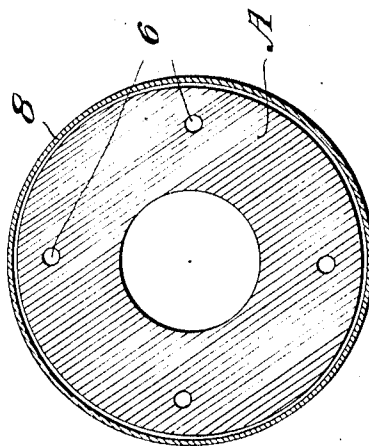


Fig. 2



Witnesses
W. S. McLaughlin
R. B. Cavanagh

Inventor
Charles Manthey
By Victor J. Evans
Attorney

UNITED STATES PATENT OFFICE.

CHARLES MANTHEY, OF STOCKETT, MONTANA.

MOTOR-CASING FOR TUBE-CLEANERS.

1,055,197.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CHARLES MANTHEY, a citizen of the United States, residing at Stockett, in the county of Cascade and State of Montana, have invented new and useful Improvements in Motor-Casings for Tube-Cleaners, of which the following is a specification.

The present invention relates to certain novel and useful improvements in a device for cleaning or removing the scale from boiler tubes and has particular application to means whereby the scale as it is removed from the tube and dropped upon the body of the cleaner or hammer is blown from the latter by a charge of compressed air or steam, such as is used to drive the hammer. By such an arrangement, I am enabled to keep the body of the cleaner or hammer free from all deposits of soot or scale, thereby enabling the cleaner to more efficiently perform its function with the result that the tube will be thoroughly and rapidly cleaned.

Still another object of my invention is to so construct and arrange the rear end of the body of the cleaner or hammer that a portion of the compressed air or steam which drives the latter will be blown out against the outer surface of the hammer body from the rear toward the front, thereby removing any deposits of scale which may have dropped upon or against the device.

With the above-recited objects, and others of a similar nature in view, the invention consists in the construction, combination and arrangement of parts, set forth in and falling within the scope of the appended claims.

In the accompanying drawing:—Figure 1 is a view partly in side elevation and partly in vertical section, of a well-known and conventional form of tube scraper or scaling hammer, and showing my invention as applied thereto. Fig. 2 is a transverse vertical sectional view taken through the rear end of the device. Fig. 3 is a rear end view with the collar nut removed.

Referring now to the accompanying drawing in detail, the letter A designates conventionally a motor casing of a scaling hammer of the well known type wherein the scraper head 1 is driven or operated by the motor within the casing A, the latter being driven by steam or compressed air. As the motor forms no part of the present invention, it is unnecessary to describe the same here in detail.

In the present instance, I form the rear end of the casing with a grooved flange 2 terminating in the stem 3 which is threaded exteriorly as at 4, the interior of the stem and the body of the casing being, of course, tubular for the admission of the operating fluid. I drill into the casing, beginning at the groove in the flange, a number of inclined bores or channels 6, in the present instance four in number, these bores or channels opening communication between the interior of the casing and the outer surface of the flange. Upon the threaded shank or stem I screw the ring or collar nut 7 which is provided with a flange 8 having the beveled or tapered inner face 9, so that when the ring or collar is threaded in place, the beveled or tapered wall of the flange, which is thinnest at the extreme edge is designed to form a baffle circuit for the air as it is blown through the channels or bores leading to the flange 2, and thereby direct the fluid in small streams longitudinally of the body of the casing from the rear toward the forward end thereof. In the present instance, I have shown the fluid pipe at B, by means of which the operating fluid is admitted to the casing and it will be readily evident that as a portion of the charge entering the casing passes through the inclined channels or bores, it will be directed forward along the exterior of the body of the casing and thoroughly clean the same by removing any deposit thereon.

While I have herein mentioned my improvement as applied to a particular type of tube cleaner, I wish it to be understood that the invention is not limited to this specific application, as it is equally useful in connection with other types of tube hammers or cleaners.

I claim:—

1. A motor casing for fluid actuated motors, said casing being provided with fluid conducting passages at one end thereof inclined rearwardly of the casing and adapted to discharge a portion of the motive fluid from the casing, means connected to said casing for directing said motive fluid forwardly of the outer surface of the casing subsequent to the passage of the fluid through said passages.

2. A motor casing for fluid actuated motors, said casing being provided with fluid conducting passages adjacent to one end thereof spaced apart and inclined rear-

wardly of the casing and adapted to direct
a portion of the motive fluid rearwardly of
the casing and exteriorly thereof, and means
surrounding the respective end of the casing
5 adjacent to the passages therein and adapted
to direct the fluid issuing from said passages
forwardly of said casing on the exterior thereof.

10 3. A motor casing for fluid actuated motors,
said casing being provided with inclined fluid
conducting passages adjacent to one end thereof,
a grooved shoulder on the casing at the outer
extremities of said inclined passages and terminating in a re-

duced stem, and a ring on said stem and 15
provided with a flange having a beveled and
tapered inner face disposed adjacent the
groove in the flange at the outer ends of the
fluid passages whereby the fluid discharged
from said passages will be directed for- 20
wardly of the casing and around the same.

In testimony whereof I affix my signature
in presence of two witnesses.

CHARLES MANTHEY.

Witnesses:

GEORGE CONWAY,
ADOLPH MANTHEY.