No. 769,310. PATENTED SEPT. 6, 1904.

J. W. FAESSLER.

APPARATUS FOR BOILER FLUE WORK.

APPLICATION FILED APR. 1, 1904.

NO MODEL. 2 SHEETS—SHEET 1.

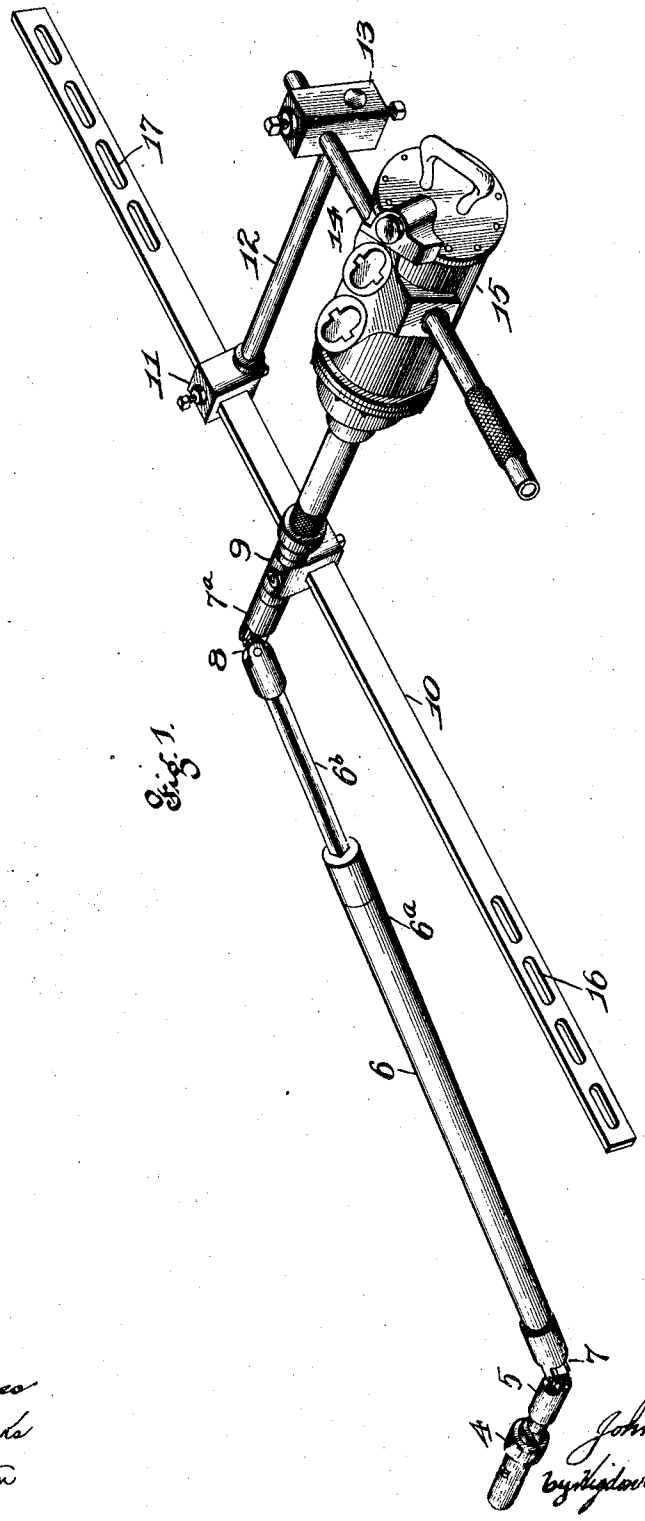


Fig. 1.

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NO MODEL. 2 SHEETS—SHEET 2.

Fig. 2

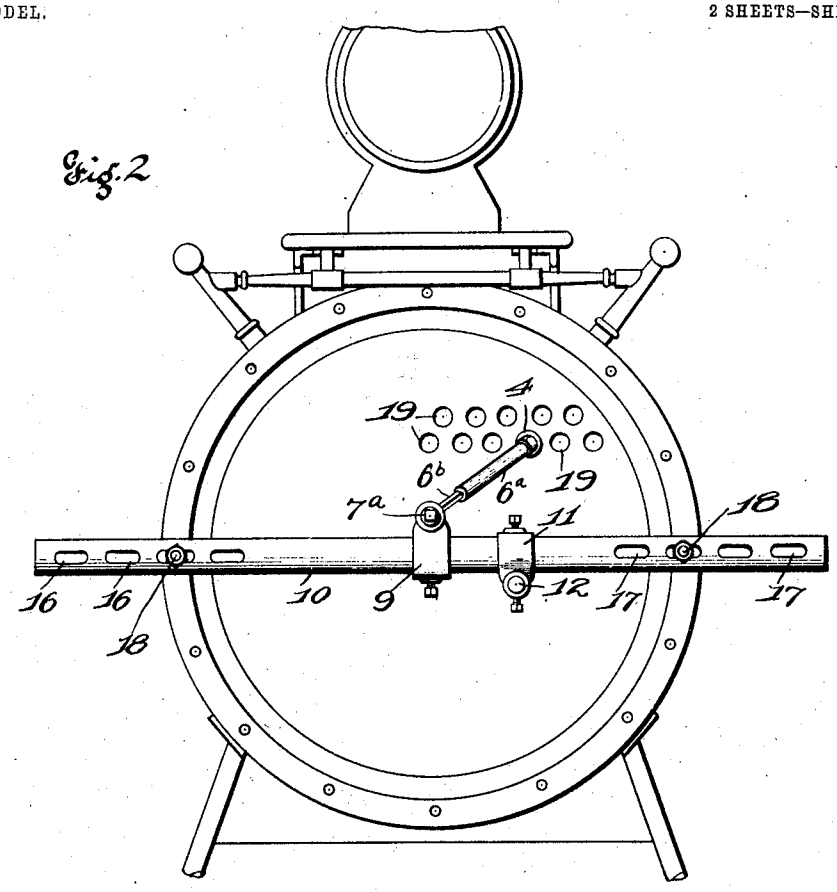
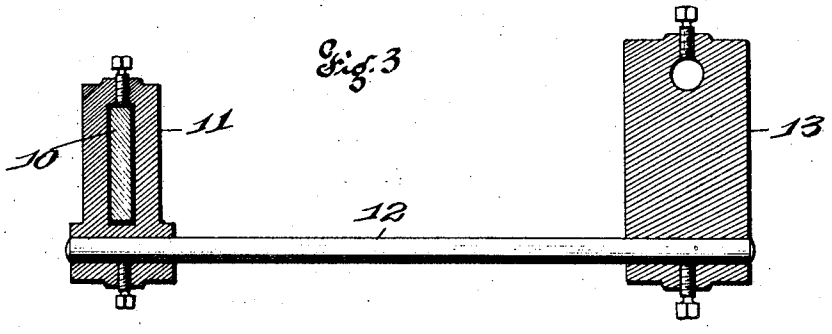


Fig. 3



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UNITED STATES PATENT OFFICE.

JOHN W. FAESSLER, OF MOBERLY, MISSOURI.

APPARATUS FOR BOILER-FLUE WORK.

SPECIFICATION forming part of Letters Patent No. 769,310, dated September 6, 1904.

Application filed April 1, 1904. Serial No. 201,189. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. FAESSLER, a citizen of the United States, and a resident of Moberly, Randolph county, Missouri, have invented certain new and useful Improvements in Apparatus for Boiler-Flue Work, of which the following is a specification containing a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to an improved apparatus for boiler-flue work, and has for its object to provide means for supporting and driving boiler-flue tools (such as cutters and expanders) from the front of a boiler.

In the drawings, Figure 1 is a perspective view of a device embodying my invention. Fig. 2 is a front view of said device in place upon a boiler. Fig. 3 is a side view of the motor guide-bar, showing its attached supporting-blocks and the guide-rail in section.

The tools to whose application and driving my device is primarily adapted are flue-cutters and flue-expanders.

In the drawings I have depicted for purposes of illustration a flue-cutter, (indicated by the numeral 4.) The tool is mounted upon a tool-block 5, which is connected to a telescope-shaft 6 by means of a universal coupler 7. The telescope-shaft 6 is composed of the member 6^a and the rectangular member 6^b, which telescopes within the member 6^a, which has a rectangular bore to receive it. The telescope-shaft 6 is connected to the shaft 7^a by means of the universal coupler 8. The shaft 7^a is carried by the block 9, which is slidably mounted upon the guide-rail 10, upon which the block 11 is also slidably mounted. The block 11 carries a guide-bar 12, which is slidably mounted in the block 11 and has slidably mounted upon it the block 13. The block 13 carries the rod 14, upon which the motor 15 is supported. The motor 15 serves to drive successively the shaft 7^a, the telescope-shaft 6, the block 5, and the tool 4.

The guide-rail 10 is provided with a plurality of slots 16 and 17 toward its respective ends, and bolts 18 serve to mount the guide-rail 10 upon the end of a boiler, as shown in Fig. 2. The motor 15, by reason of the supporting means described, may be slid from side to side of the axial line of the boiler, and the tool 4 may be used in rotation upon any and all of the boiler-flues which are indicated by the numeral 19 in the drawings, the universal couplers 7 and 8 and telescope-shaft 6 providing for sufficient latitude of movement of the tool 4 to that end.

Having thus described my invention, what I claim as new, and desire to have secured to me by the grant of Letters Patent, is—

1. The apparatus for boiler-flue work comprising a guide-rail slotted toward its ends and adapted to be mounted on the end of a boiler, a shaft-carrying block slidably mounted on the guide-rail, a block 11 also slidably mounted on the guide-rail, a guide-bar slidably mounted in the block 11, a block 13 slidably mounted on the guide-bar, a bar 14 slidably mounted in the block 13, a motor carried by the bar 14, a shaft adapted to be driven by the motor, a telescope-shaft adapted to be driven by the first-named shaft, a tool-block adapted to be driven by the telescope-shaft and universal couplers connecting the ends of the telescope-shaft with the first-named shaft and the tool-block, substantially as specified.

2. The apparatus for boiler-flue work comprising a guide-rail slotted toward its ends and adapted to be mounted on the end of a boiler, a shaft-carrying block slidably mounted on the guide-rail, a block 11 also slidably mounted on the guide-rail, a guide-bar slidably mounted in the block 11, a block 13 slidably mounted on the guide-bar, a bar 14 slidably mounted in the block 13, a motor carried by the bar 14, a shaft adapted to be driven by the motor, a telescope-shaft adapted to be driven by the first-named shaft, a tool-block adapted to be driven by the telescope-shaft and couplers connecting the ends of the telescope-shaft with the first-named shaft and the tool-block, substantially as described.

3. In an apparatus for boiler-flue work: a guide-rail adapted to be mounted on the end of the boiler; a shaft-carrying block mounted on the guide-rail; a second block mounted on the guide-rail; a bar extending from the second block; a third block mounted on the forward end of said bar; a second bar mounted

in the third block transversely of the first bar; and a motor mounted with its shaft extending through the shaft-carrying block and with its body supported upon said second bar; substantially as specified.

4. In an apparatus for boiler-flue work: a guide-rail adapted to be rigidly mounted on the end of the boiler; a shaft-carrying block adjustably mounted on the guide-rail; a second block adjustably mounted on the guide-rail; a guide-bar slidably mounted through the second block and extending forwardly; a third block slidably mounted upon the forward end of said guide-bar; a bar slidably mounted through the third block on a line crosswise of the guide-bar; a motor mounted upon the second bar with its shaft extending through the shaft-carrying block; and a tumbling-rod connection leading from the motor-shaft for operating the tool; substantially as specified.

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

JOHN W. FAESSLER.

Witnesses:

ALFRED A. EICKS,

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