

(No Model.)

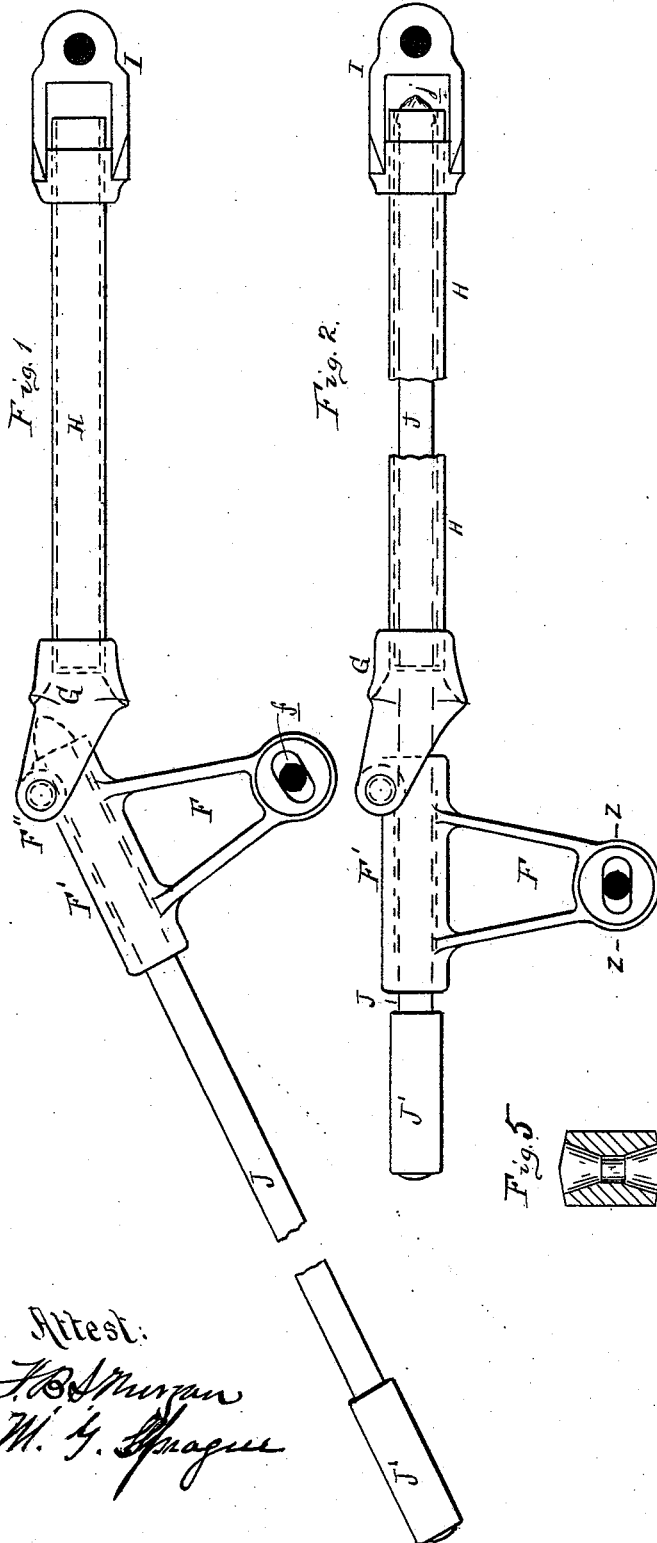
2 Sheets—Sheet 1.

W. L. MORRIS.

SHAKING ATTACHMENT FOR ROCKING GRATES.

No. 456,244.

Patented July 21, 1891.



Attest:

J. B. Morgan
W. H. Sprague

Inventor.

W. L. Morris.

H. S. Sprague

A. H. J.

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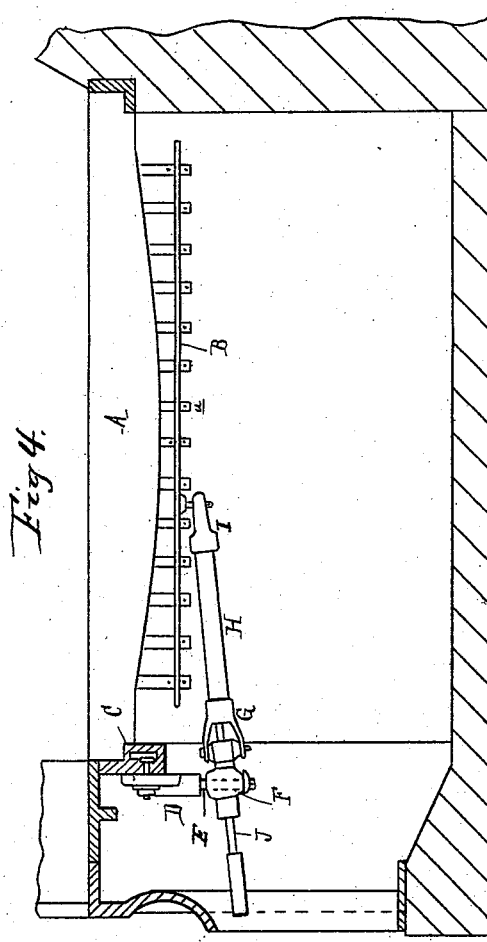
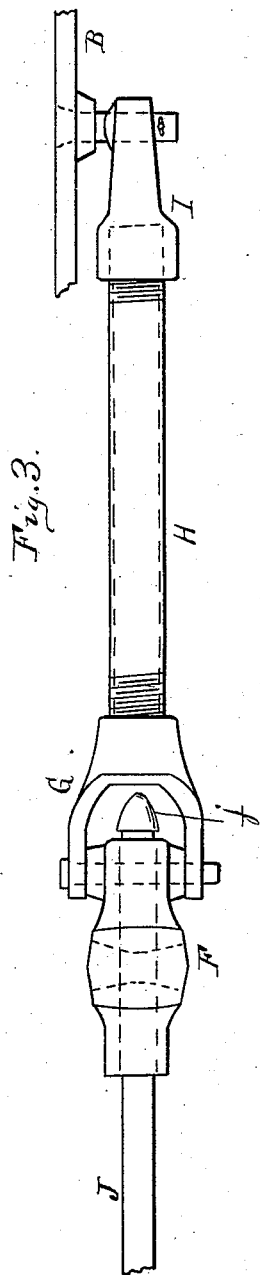
2 Sheets—Sheet 2.

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M. G. Sprague

Inventor.
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UNITED STATES PATENT OFFICE.

WILLIAM L. MORRIS, OF CLEVELAND, OHIO.

SHAKING ATTACHMENT FOR ROCKING GRATES.

SPECIFICATION forming part of Letters Patent No. 456,244, dated July 21, 1891.

Application filed October 15, 1890. Serial No. 368,218. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM L. MORRIS, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Shaking Attachments for Rocking Grates, of which the following, with the accompanying drawings, is a specification.

This invention relates to certain new and useful improvements in shaking attachments to rocking grates.

The invention consists in the peculiar construction, arrangement, and combinations of the various parts, all as more fully hereinafter set forth, and pointed out in the claim.

Figure 1, Sheet 1, is a top plan of the attachment detached, showing the handle as drawn out in position for rocking the grates. Fig. 2, Sheet 1, is a similar view with the handle pushed in. Fig. 3, Sheet 2, is a side elevation showing manner of pivotally hanging the vibrating bracket. Fig. 4, Sheet 2, is a sectional view of the ash-pit section of the boiler, showing the shaking attachment in position and attached to the pendants of the rocking grates. Fig. 5, Sheet 1, is a section on the line $z z$ of Fig. 2. Figs. 1, 2, 3, and 5 are drawn to a uniform scale, while Fig. 4 is materially diminished in size.

In the accompanying drawings, which form a part of this specification, A represents the side bar of a rocking grate of any known construction, the rocking sections of which are provided with the pendants a , and which latter are connected together by a shaking-strap B in any such manner that the said grates may be simultaneously operated.

C represents the front bearing-bar, which supports the front ends of the grates. D is a hanger depending from said bearing-bar C, and it is provided with a pin E, upon which is pivotally mounted the vibrating bracket hereinafter described.

F is a vibrating bracket, which is pivotally hung upon the pin E, the pin passing through the opening, which latter gradually increases in size from its longitudinal center outward, so as to allow the bracket to have a rocking motion upon said pin and to prevent binding or catching in the operation of the device.

The cored arm F' is preferably provided at or near one end with diametrically-opposite bosses F'', by means of which the bracket F may be pivotally hung in the end of a yoke G, which is secured upon the end of a hollow connecting-bar H, the rear end of which is threaded to engage with a nut I, the latter being adapted to be pivotally connected to the shaking-strap B of the grate, as shown in Fig. 6.

J is an actuating-lever which is designed to slide through the cored arm F' of the bracket F and into the connecting-bar H, as is shown in Fig. 2. The inner end of the lever J is provided with a head j , preferably tapered as shown, and of sufficient size to prevent the lever being withdrawn through the bracket while it will easily enter and slide within the hollow connecting-bar H. The outer end of the lever may be provided with any suitable handle J'.

The parts being constructed and arranged substantially in the manner herein shown and described, the operation is as follows, reference being specially had to Figs. 2 and 6: The actuating-lever is pushed in where it is entirely out of the way when drawing ashes from the ash-pit. It being desired to rock the grates the ash-pit door is opened, the actuating lever is then drawn out, and by oscillating this lever the grates are rocked in the bearings through the connections between the said lever and the shaking-strap B, as can readily be seen by referring to the drawings. The grates having been rocked, the actuating-lever is pushed in, as shown in Fig. 2, and as the lever passes through the bracket and the yoke, as shown in said figure, it will readily be seen that the grates are thus locked to their level position or to the position to which they may have been set at the time of attaching the shaking device to place.

It is evident that the device may take on various forms in detail of construction and as may be necessary in applying it to different styles of rocking grates and still be within the spirit of my invention.

What I claim as my invention is—

In a shaking attachment, in combination, a vibrating bracket provided with a hollow

arm, a hollow bar connecting said vibrating
bracket with the shaking-strap of a rocking
grate, and an actuating lever or handle
adapted to slidingly engage said bracket and
5 said hollow connecting-bar for the purpose
of locking the grates to their adjusted posi-
tions, substantially as herein described.

In testimony whereof I affix my signature, in
presence of two witnesses, this 4th day of Oc-
tober, 1890.

WILLIAM L. MORRIS.

Witnesses:

H. S. SPRAGUE,
O. L. HUMMEL.