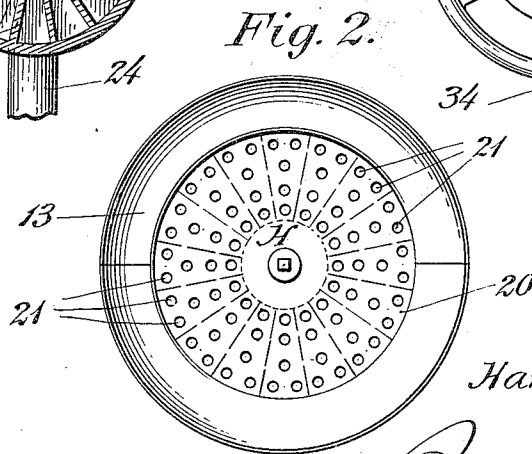
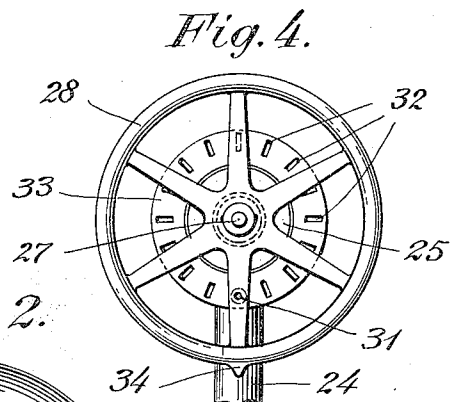
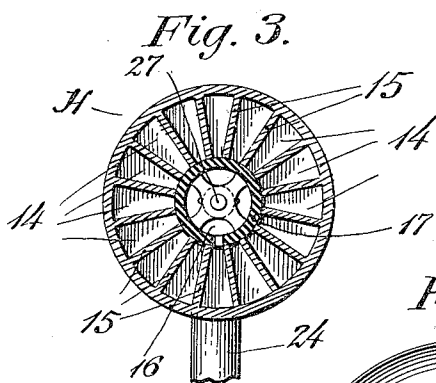
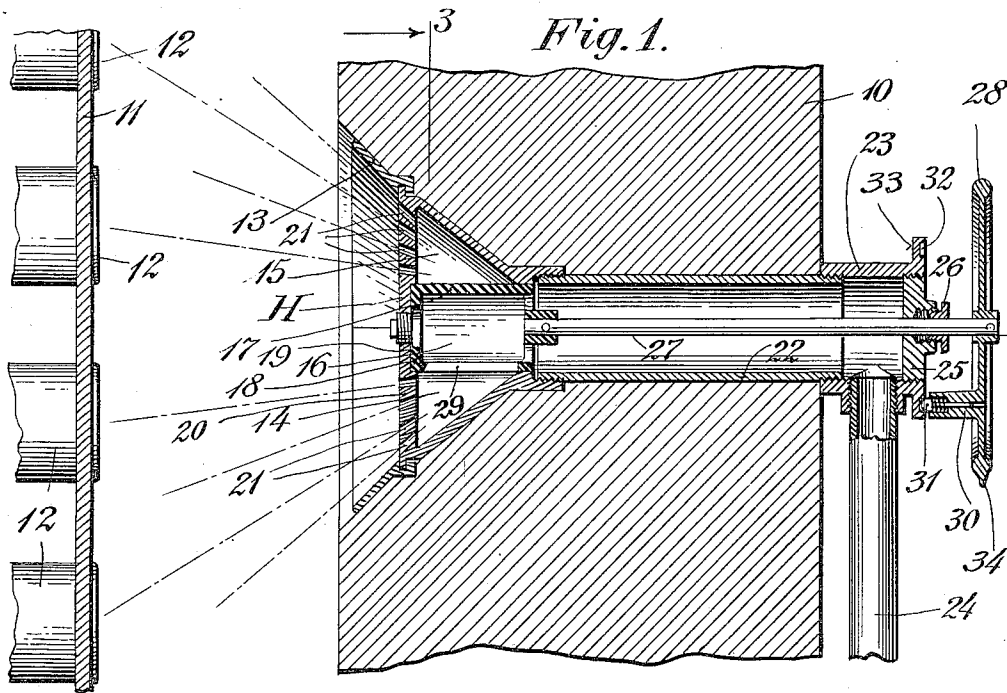


H. A. HIGGINS.
BLOWER FOR BOILERS.
APPLICATION FILED MAY 4, 1911.

1,016,994.

Patented Feb. 13, 1912.



Witnesses
F. C. Ernst
Chas. W. Stauffer

Inventor
Harry A. Higgins,

By *[Signature]*
Attorneys

UNITED STATES PATENT OFFICE.

HARRY A. HIGGINS, OF DETROIT, MICHIGAN, ASSIGNOR TO DIAMOND POWER SPECIALTY CO., OF DETROIT, MICHIGAN.

BLOWER FOR BOILERS.

1,016,994.

Specification of Letters Patent.

Patented Feb. 13, 1912.

Application filed May 4, 1911. Serial No. 624,901.

To all whom it may concern:

Be it known that I, HARRY A. HIGGINS, a citizen of the United States of America, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Blowers for Boilers, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to boiler-flue cleaners, and especially to that class thereof which are built into the setting of the boiler, and it has for its object the provision of a device of this character which comprises a multi-chamber distributing head containing a controller whereby such chambers will be consecutively connected with the main steam-supply to blow out a small predetermined number of boiler flues to the exclusion of all others, at any one time.

Further objects of the invention will hereinafter appear and be particularly defined in the claims.

The invention has been clearly illustrated in the accompanying drawings in which similar characters denote similar parts, and in which—

Figure 1 represents in vertical section a portion of the rear setting-wall of a boiler with my improved blower device in position; Fig. 2 is a front view thereof; Fig. 3 represents a section of the blower on line 3 indicated in Fig. 1; and Fig. 4 is a rear face view of the same.

Referring to the drawings, 10 denotes the rear wall of the boiler setting spaced from the head of the boiler-shell 11 to leave a passage for the products of combustion through the tubes 12, as usual. Seated within a perforation in the wall, is my improved device which comprises a guard plate 13 for protecting the setting and also holding the inner end of the blower in place, the latter having a distributing-head H divided into a series of separate compartments or chambers 14, by partitions 15, the inner ends of which rotatably support a controller-member 16 which preferably consists of a cylindrical shell 17 journaled with its front head 18 in a recess 19 provided therefor in a plate 20 whereby the front ends of all the chambers are closed, but which is provided with apertures 21 variously inclined to direct steam issuing therethrough into the rear ends of certain boiler-flues.

The distributing head H is secured to the front end of a tubular casing or steam-conduit 22, the rear end of said conduit carrying a pipe fitting 23 in communication with a steam-supply pipe 24. Preferably the fitting 23 has a plug-head 25, provided with a stuffing box 26 to form a steam-tight bearing for a shaft 27 whereby the controller-member 16 may be rotated, as by means of a hand wheel 28, to bring a slot 29 in said member into communication with the several chambers 14 of the distributing head H, successively. In order to bring and hold the member in proper register-position with the chambers, the hand wheel has a forwardly extending lug 30 in which a spring-pressed plunger 31 is seated and adapted to partially enter any one of a series of indentations 32 provided in a flange 33 of the fitting 23, the construction being such, however, that the hand wheel may be forcibly turned by hand to overcome the resistance of the spring-plunger. A projection 34 on the hand wheel corresponding in position to that of the slot 29, may serve as an index pointer to show to the operator at a glance which compartment of the distributing head is in action.

I claim:—

1. A flue blower comprising a steam-supply pipe, a distributing head having a series of separate radial chambers, and a controller for establishing communication between said pipe and chamber successively.

2. A flue blower comprising a steam-supply pipe, a distributing head having a series of separate radial chambers, a controller for establishing communication between said pipe and chambers successively, and means for moving said controller step-by-step.

3. A flue blower comprising a steam-supply pipe, a distributing head having a series of separate radial chambers, a controller for establishing communication between said pipe and chambers successively, a hand-wheel on the controller, and a spring-actuated plunger on the hand wheel and in engagement with said pipe for positioning said controller relatively to the chambers.

4. A flue-blower comprising a steam-supply pipe, a distributing head having a series of partitions dividing said head into a series of separate adjacent chambers, a controller journaled in said head and comprising a hol-

low casing having a slot adapted to register with the space between the partitions, and means for rotating said controller.

5 5. A flue-blower comprising a steam-supply pipe, a distributing head having a series of partitions dividing said head into a series of separate adjacent chambers each having a series of diversely inclined apertures, a
10 controller journaled in said head and comprising a hollow casing having a slot adapt-

ed to register with the spaces between the partitions, and means for rotating said controller.

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

HARRY A. HIGGINS.

Witnesses:

F. E. ERNST,

ANNA C. RAVILER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."