(No Model.)

A. HORTON & B. J. WRIGHT.

FEEDING AIR TO STEAM BOILER FURNACES.

No. 368,670. Patented Aug. 23, 1887.

Fig. 1.

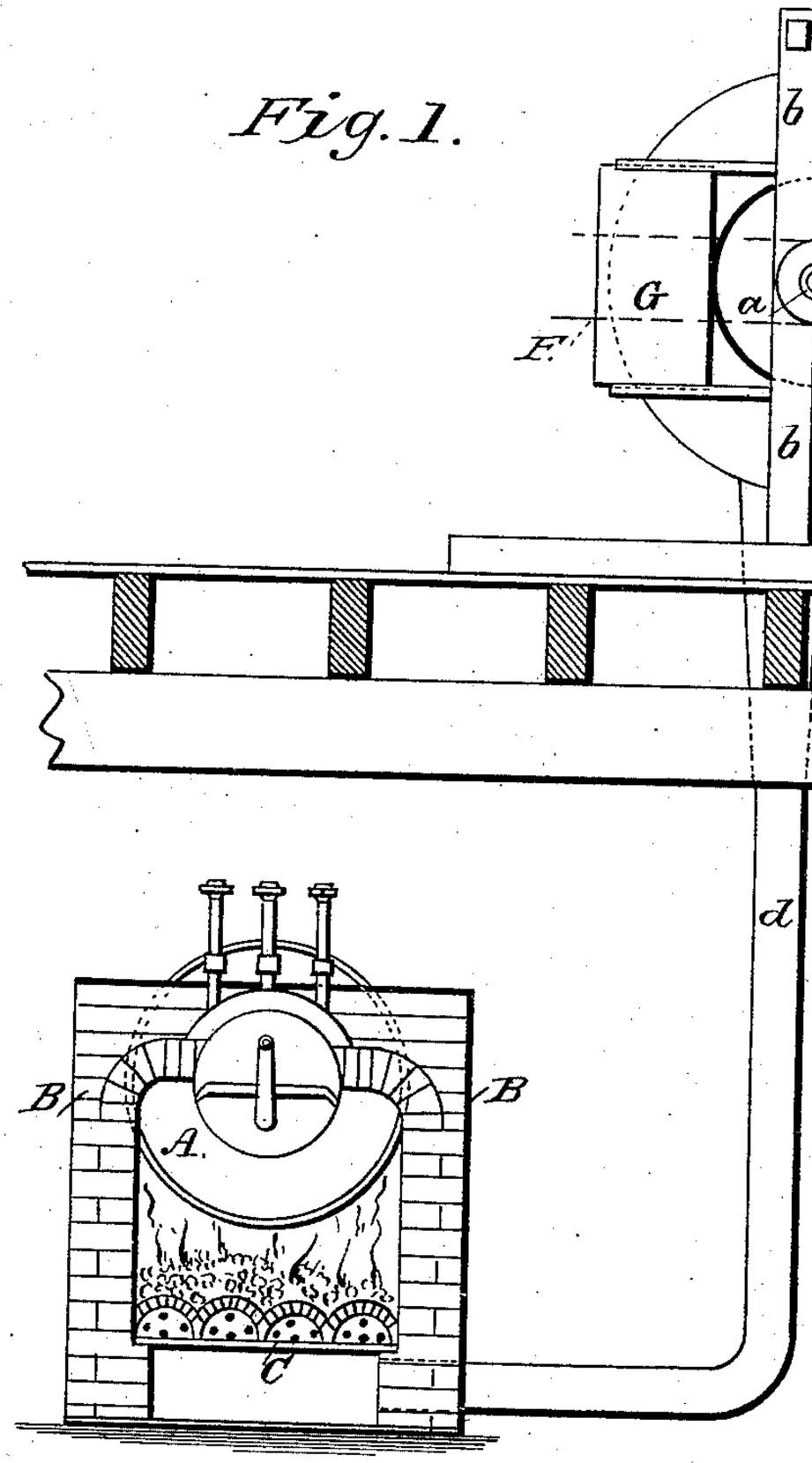


Fig. 2.

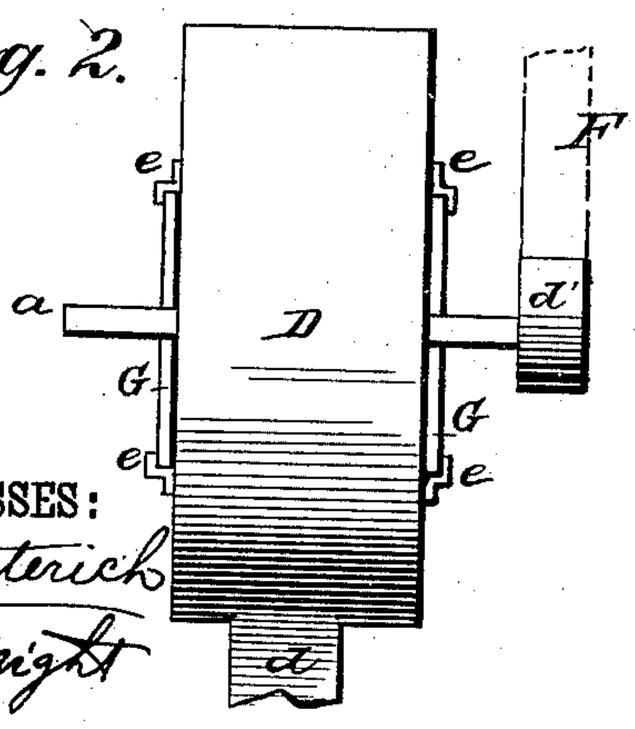
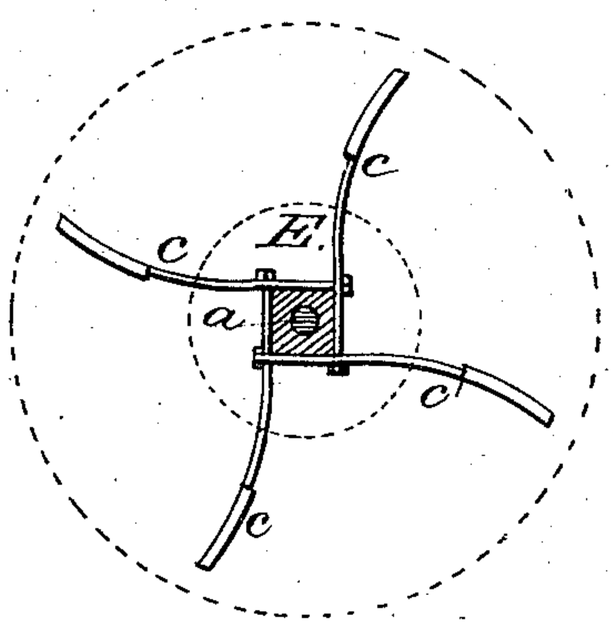


Fig. 3.



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UNITED STATES PATENT OFFICE.

ALANSON HORTON AND BENJAMIN J. WRIGHT, OF HAMMONDSPORT, NEW YORK; SAID WRIGHT ASSIGNOR TO NANCY J. WRIGHT, OF SAME PLACE.

FEEDING AIR TO STEAM-BOILER FURNACES.

SPECIFICATION forming part of Letters Patent No. 368,670, dated August 23, 1887.

Application filed November 15, 1886. Serial No. 218,955. (No model.)

To all whom it may concern:

Be it known that we, ALANSON HORTON and BENJAMIN J. WRIGHT, of Hammondsport, in the county of Steuben and State of New York, have invented a new and useful Improvement in Feeding Air into Steam-Boiler Furnaces, of which the following is a specification.

The object of our invention is to increase the draft in steam-boilers without increasing the length of the smoke pipe or stack.

The invention consists of a fan or its equivalent connected to a boiler; and it also consists in providing the fan with means for regulating the amount of air supplied to the boiler.

Reference being had to the accompanying drawings, in which similar letters of reference indicate corresponding parts in all the figures, Figure 1 is a side elevation of our improvement, showing it applied to a stationary boiler. Figs. 2 and 3 are detail views.

A is a stationary steam-boiler; B, the arch supporting the same, and C the grate. Above the boiler, supported in any suitable manner, is the cylinder or drum D, provided with the pipe *d*, leading from the bottom of said cylinder or drum to the arch B, on which the boiler A rests, under the grate C. Within the cylinder or drum D is arranged the fan E, the shaft *a* of which projects through the sides thereof and is journaled in suitable supports, *b*. The fan E consists of four wings, *c*, attached to the shaft *a* in any suitable manner. Upon one end of the shaft *a* of the fan is mounted a pulley, *d'*, around which the band F passes, the said band being driven from any suitable propelling part of the engine, or from any other source.

In order to control and regulate the amount of air delivered to the boiler, we provide the cylinder or drum D with the slides or dampers G, which slide in ways *e* on the sides of the said cylinder or drum over openings in the sides thereof. One of the slides at each side of the drum is connected to the upper end of a lever, G', so that by operating the said lever the slides may be made to open or close the openings in the sides of the cylinder or drum, as may be desired.

By means of our invention the draft of steam-boilers can be greatly increased without increasing the length of the smoke pipe or stack, and provision made for burning any kind of fuel which is capable of being burned.

Although we have shown our invention applied to a stationary steam-boiler, yet we do not restrict ourselves to such, for it is evident that it is equally applicable to any and all steam-boilers.

We are aware that it is not broadly new to connect a fan or blower to a boiler for the purpose of creating a draft, and we therefore do not claim such invention.

Having thus described our invention, what we claim as new is—

The combination, with a boiler, of the cylinder or drum D, having openings in its sides and provided with the cleats *e* above and below said openings, and with the pipe *d*, leading to and under the grate of the boiler, the slides G, working in the ways formed by the cleats, and the pivoted lever G', having its upper end connected to the slides by a link, substantially as herein shown and described.

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