

J. GRABNER.

Flue-Blasts for Steam Fire-Engines.

No. 134,796.

Patented Jan. 14, 1873.

Fig. 1.

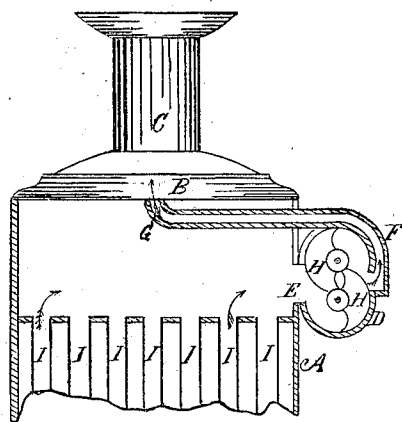
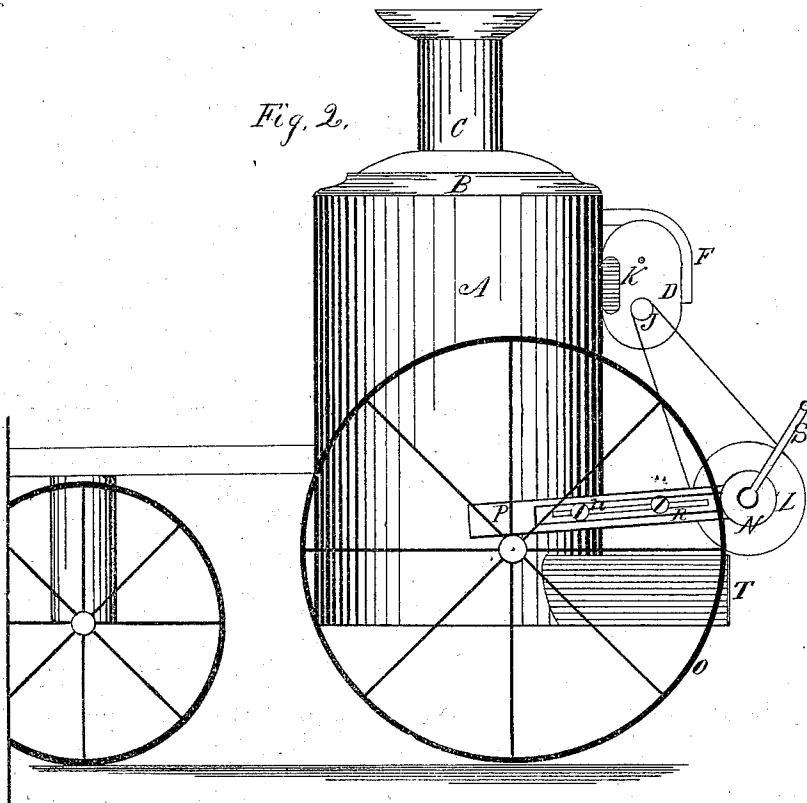


Fig. 2.



Witnesses

Geo. G. Pope.

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Inventor

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UNITED STATES PATENT OFFICE.

JOHN GRABNER, OF WARSAW, INDIANA.

IMPROVEMENT IN FLUE-BLASTS FOR STEAM FIRE-ENGINES.

Specification forming part of Letters Patent No. **134,796**, dated January 14, 1873.

To all whom it may concern:

Be it known that I, JOHN GRABNER, of Warsaw, in the county of Kosciusko and State of Indiana, have invented an Improved Blast for Steam Fire-Engines, of which the following is a specification:

The present invention relates to improved means for creating a blast for steam fire-engines, placed laterally to the dome, whereby steam may be gotten up in a very short space of time.

In the drawing, Figure 1 represents a vertical central section of the top end of the boiler and the dome of an ordinary steam fire-engine as it is provided with my improved blast apparatus; and Fig. 2, an elevation of a part of a steam fire-engine provided with my blast apparatus.

A represents the boiler of a fire-engine, B the dome, and C the smoke-stack; and I I are the flues of the boiler, as shown at Fig. 1. D H represent a suction and blast fan or blower, which is made of metal or other suitable material, and which takes the heated air from the upper ends of the flues I I through an opening or pipe E, delivers it into a conducting-pipe F, and discharges it by an upward blast, as shown by dart B, into the smoke-stack C, the inner end G of said pipe F being curved upward to give proper direction to the blast. I am not particular as to the construction of the fan, so it produces the suction and blast described.

In order to give suitable motion to the fan when the engine is in motion, and when it is stationary, the following devices are used: A suitable frame, P, Fig. 2, is rigidly fastened to the boiler A or to the frame of the engine; and to this frame is fixed an adjustable slide, R, which supports the journal of a friction-

wheel, N, and which may be moved longitudinally on the frame P, so as to give the friction-wheel N the proper pressure on the traveling-wheel O of the engine which rotates the wheel N. A hand-wheel, L, is fixed to the same shaft as the friction-wheel N, so that when the latter is driven by wheel O, a band running from wheel L over the fan-pulley J, the fans H will have given to them the proper motion for creating a blast. When the engine is stationary the slide R is moved outwardly far enough for the friction-wheel N to clear the wheel O. The fan then can be driven by crank S.

In the present construction the set-screws *n n* hold the slide R rigidly fixed when once set; but if necessary to give the wheel N an elastic pressure against the wheel O, the journal-box of wheel N can at one end be packed with rubber, or may be operated upon by a spring.

The advantage of my arrangement, it will be perceived, relates more especially to engines in which altitude is objectionable; and the purpose aimed at is accomplished by placing the blowing apparatus in this lateral position, and thus avoiding the necessity of a more elevated chimney.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

The interposing fan H D, or its equivalent, arranged by means of opening E to create a suction-blast above the flues I I, and by means of pipe F to give an upward blast, substantially as described.

JOHN GRABNER.

Witnesses:

JOHN N. RUNYUN,

WILLIAM DICKENSHEETS.