L. H. WATSON.

PORTABLE FORGES.

No. 183,088. Patented Oct. 10, 1876.

Fig. 2.

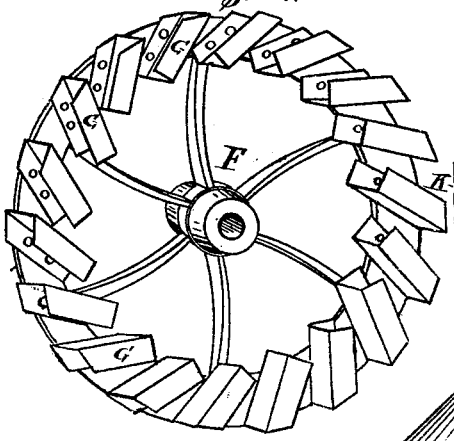


Fig. 3.

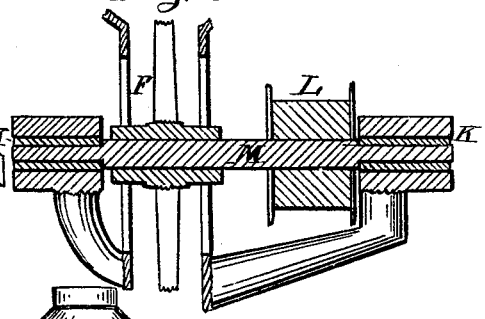
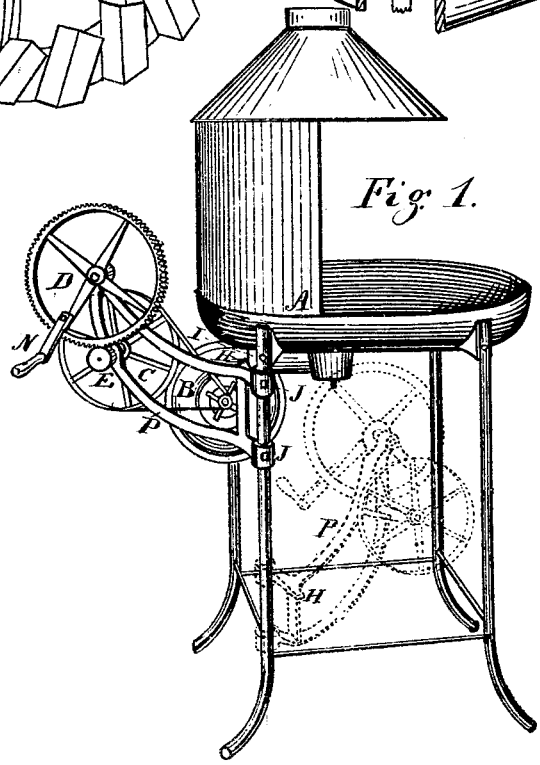


Fig. 1.



Witnesses

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UNITED STATES PATENT OFFICE.

LEWIS H. WATSON, OF CLEVELAND, OHIO, ASSIGNOR TO THE CLEVELAND STEAM-GAGE COMPANY, OF SAME PLACE.

IMPROVEMENT IN PORTABLE FORGES.

Specification forming part of Letters Patent No. **183,088**, dated October 10, 1876; application filed September 4, 1876.

To all whom it may concern:

Be it known that I, LEWIS H. WATSON, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain Improvements in Portable Forges, of which the following is a specification:

This invention relates to portable forges; and consists in the peculiar arrangement of the motive parts, whereby the same may be lowered and swung around under the pan for the convenience of stowing them out of the way when not required for use or for shipment, and again adjusted in place for use, as represented in dotted lines in Fig. 1, and also in combination with the forged fan-blower of peculiar construction, hereinafter more fully set forth.

Referring to the accompanying drawing, Figure 1 is a perspective view of a portable forge embodying my improvements. Fig. 2 is a detached view of the fan-wheel. Fig. 3 is a sectional view of the fan-shaft, showing the bushings.

A is a portable-forge fire-pan, in the bottom of which is placed the tuyere, and which is supported on suitable legs. B is a fan secured to the under side of said pan, and is connected to the tuyere, in which is placed the fan-wheel F. P is a bracket or crane, to which are attached a belt-pulley, C, gear-wheel D, and pinion E, said wheel D having a crank, by which it is turned, giving motion through the pinion to the wheel C, thence by belt to pulley L on fan-shaft M to the fan-wheel.

The bracket or crane P has two sleeves on the lower ends of its arms, by means of which it is attached to one of the legs supporting the pan.

The sleeves are provided with set-screws for securing the said bracket or crane in place. By loosening the set-screws the bracket or crane may be slid down the leg and swung in under the pan A, as seen in dotted lines, Fig. 1.

To adjust the bracket or crane in place for use there is provided a projection, H, on the upper arm, which rests against a stop, I, on the under side of the pan, whereby the belt-wheel is easily and readily adjusted in line with the fan-shaft, for connecting the belt therewith.

The fan consists of a wheel having a flat rim, to which are attached a series of buckets or fan-blades, G, of U shape, secured by rivets in a diagonal position to the diameter-line, so as to present a square pushing-surface to the atmosphere in the direction of the outlet-pipe of the fan-case.

K K are box-metal bushings placed in the bearings of the fan-shaft M, which, having a rapid motion, require a durable surface and a steady movement, which these only will give for any length of time, and which may be readily replaced when worn.

Having described my invention, I claim—

1. The bracket or crane P, supporting the wheel C, gear D, and pinion E, and provided with the sleeves and set-screws J J and the projection H, in combination with the stop I, substantially as and for the purposes set forth.

2. The fan-blower herein described, in combination with the forge and the mechanism for operating the same, all as set forth.

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Witnesses:

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