

W. T. Kosinski's
Portable Forges.

117303

PATENTED JUL 25 1871

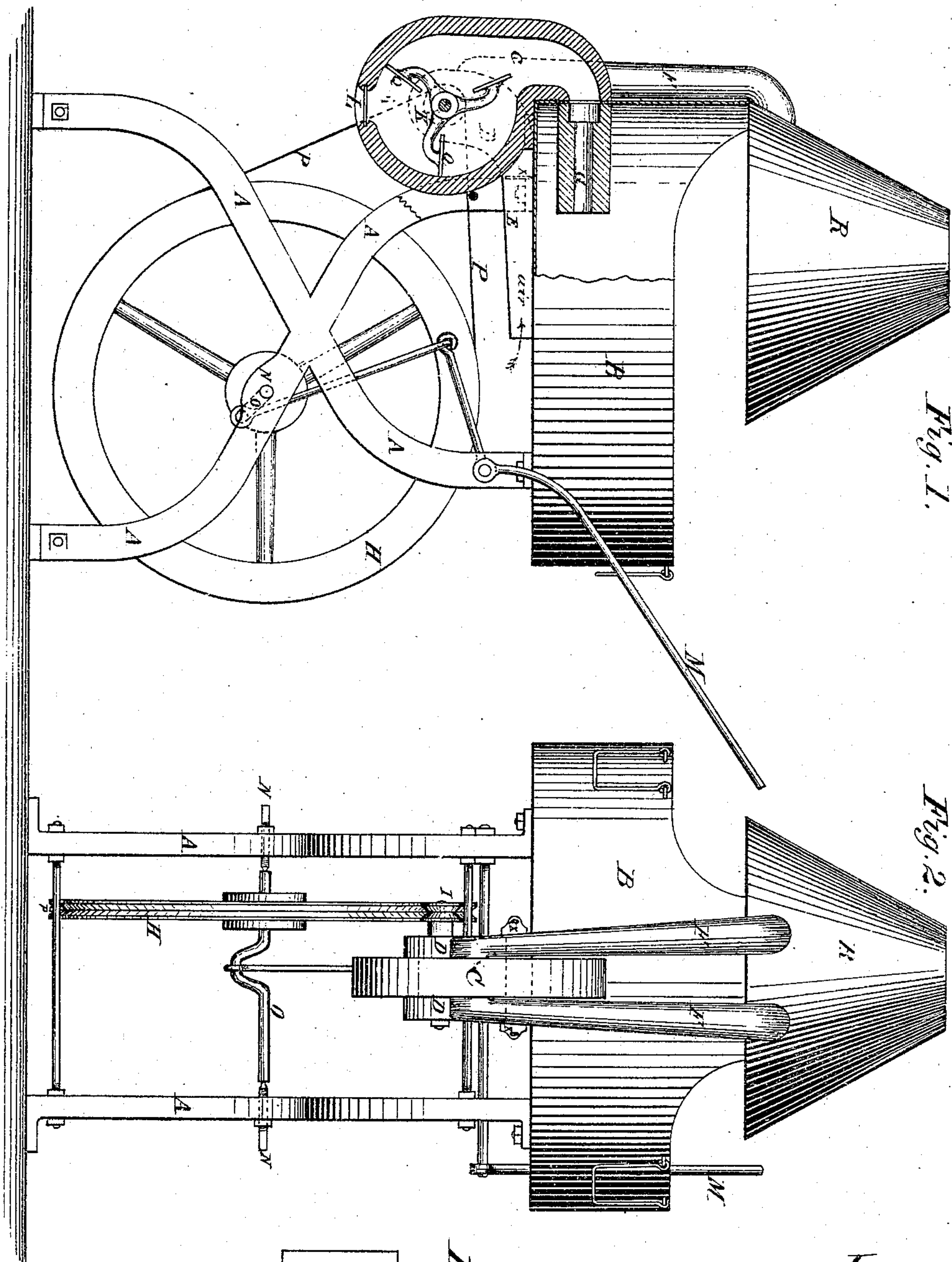


Fig. 1.

Fig. 2.

Fig. 3.

Witnesses:
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UNITED STATES PATENT OFFICE.

WLADYSLAW THEODORE KOSINSKI, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN FORGES.

Specification forming part of Letters Patent No. 117,303, dated July 25, 1871.

To all whom it may concern:

Be it known that I, WLADYSLAW THEODORE KOSINSKI, of the city and county of Philadelphia and State of Pennsylvania, have invented certain Improvements in Portable Forges, of which the following is the specification:

The nature of my invention consists in the construction of the forge, hereafter more fully described.

Figure 1 is a side elevation, part section. Fig. 2 is an end view of the forge. Fig. 3 is a sectional view of the tuyere.

Upon the frame A I construct the hearth B, to which is secured the fan-blower C. The tuyere G is secured, by means of screws, to the peculiar-shaped neck of the fan-blower C from the inside of the hearth. I attach tight-fitting side drums D to the cheek-plates of the fan-blower for the purpose of drawing the heated air from under the hearth-plate through the hot-air channel, which may sometimes be closed by means of a valve or damper in order to draw the unconsumed carbon or smoke and heated air through the two upright draught-pipes F, extending from the side drums upward to a proper elevation above the fire. The extremities of said draught-pipes are bell-mouthed in order to receive the unconsumed smoke and heated air more freely. The drums D are fitted close to the cheeks of the fan-blower, having openings for the hot-air channel and for the bell-mouthed draught-pipes, either of which may be used. I construct the tuyere with a main channel, *a*, which has two branches, *bb*, of half its diameter, diverging therefrom. The hearth B may be made either round or square, and has on its flange several hinged brackets which serve as supports for long iron bars when such are to be heated. Over the top of the hearth is a conical detachable roof, R, secured, the object of which is to facilitate the escape of gas and smoke toward the chimney; and in outdoor work it protects the operation from rain.

At the bottom of the fan-blower I have an opening, which is provided with the hinged door L, serving the purpose of drawing off the cinders or ashes that may accumulate in the fan-blower. In order to draw the unconsumed smoke or carbon through the two upright draught-pipes and cause sufficient air to pass through the tuyere, I employ the weighted fly-wheel H, which is fixed in the center of the frame upon a crank, O, the latter being supported by two conical pins, N, passing through the frame and fitting in correspondingly-shaped recesses in the crank-shaft. For the purpose of adjusting the fly-wheel I have elongated slots in the frame through which the set-screws N N that hold the crank pass. Motion is communicated to the fan-blower by means of the cord P, passing over the grooved fly-wheel and over the grooved pulley S, which latter is secured outside and upon the spindle K that passes through the fan-blower and the drums. The apparatus is set in motion by means of the hand-lever M, connected, by intermediate gearing, to the crank-shaft of the fly-wheel.

I do not confine myself to those means of communicating motion to the blower, as this may be accomplished by friction of the fly-wheel and pulley or other mechanical devices.

I am aware that portable forges comprehending a forge, hearth, tuyere, hood, and fan are not new; nor do I claim such a device to be my invention; but

What I do claim as my improvement is—

The combination of the hot-air channel E contiguous to the bottom of the hearth, leading to the blast-chamber, and the draught-tubes F connecting the blast-chamber with the hood, substantially as described.

WLADYSLAW T. KOSINSKI.

Witnesses:

R. H. MARSH,
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