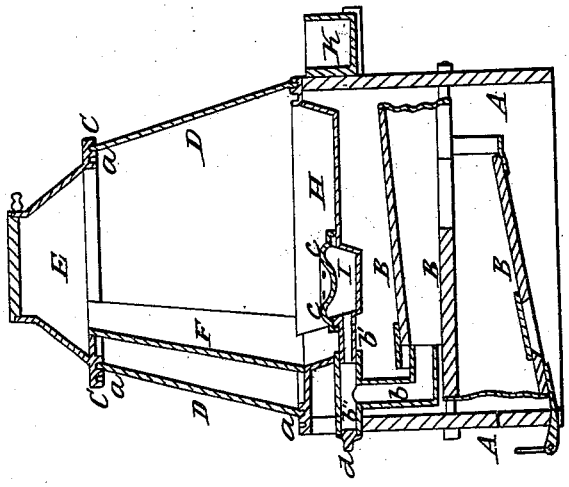
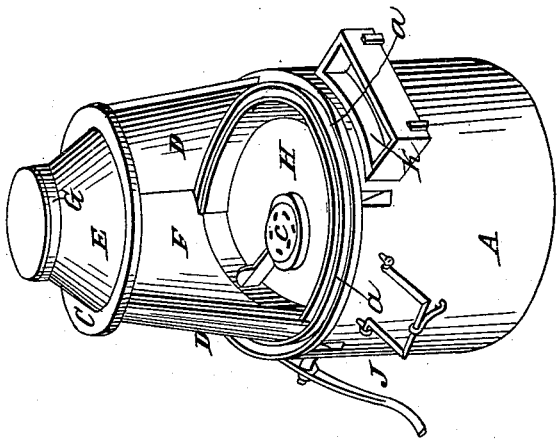
C. V. QUEEN.

Portable Forge.

No. 4,273. Patented Nov. 18, 1845.





UNITED STATES PATENT OFFICE.

CHRISTIAN V. QUEEN, OF PEEKSKILL, NEW YORK.

FORGE.

Specification of Letters Patent No. 4,273, dated November 18, 1845.

To all whom it may concern:

Be it known that I, CHRISTIAN V. QUEEN, of Peekskill, in the county of Westchester and State of New York, have invented a new and useful Improvement in the Manner of Constructing Portable Forges for the Use of Blacksmiths and Others; and I do hereby declare that the following is a full and exact description thereof.

My portable forge is adapted to the using of charcoal, bituminous coal, or anthracite, a principal improvement in it consisting in a device for allowing a draft of air to pass through the fuel when the forge is left at rest, by which means anthracite may be kept in a state of ignition for a great length of time, and the trouble and loss attendant on the necessity of frequently relighting the fire are obviated.

In the accompanying drawing, Figure 1 is a perspective representation of my portable forge, and Fig. 2 a vertical section through it from front to back.

A A is a cylindrical case of sheet iron, or of wood as may be preferred. This part in one that I have made is two feet, four inches in diameter, its height, the same with an ordinary smith's forge. Within it is contained the bellows as shown at B B B; these do not differ in principle from those ordinarily used. The cylinder A is surmounted by a circular cast-iron rim C, C, furnished with grooves *a a* in which curved sliding shutters of cast-iron, D, D, run, there being similar grooves in a cap piece E which is sustained by a stationary plate F extending from the hearth-plate to said cap. When the shutters D D are entirely closed, the forge will be converted into a kind of furnace, and a draft may be established through it, there being an opening, or exit pipe G, at top.

H is the hearth which may be covered with soapstone, fire clay, or any bad conductor of heat.

I is the forge pan, into which the blast from the bellows is to be conducted through the pipes *b*, *b'*. To this pan I adapt a cover, *c*. This is to be put on when anthracite is used, but it may be left off when bituminous coal, or charcoal is employed. It has several openings, or twyer holes through it which serve to diffuse the blast. To the tube *b'*, that enters the forge pan I, is attached a tube *b''* which extends through the cylinder A and is furnished with a stopper *d;* when this stopper is removed air will be admitted to the forge-pan, and the shutters D being closed there will be a clear draft through the fire sufficient to continue the ignition of the coal.

J is a handle for working the bellows, and K a trough for water. When the forge is used by a single person a treadle may be applied for working the bellows, instead of doing this by hand.

Having thus fully described the manner in which I construct my portable forge and arrange the respective parts thereof, what I claim therein as new and desire to secure by Letters Patent is—

The combination of the curved sliding shutters for inclosing the space over the fire, and the device for admitting a draft of air to keep up the combustion during the interval in which the bellows are not employed; the same being effected for the purpose and substantially in the manner made known.

CHRISTIAN V. QUEEN.

Witnesses:
WM. H. FLUTE,
TILLINGHAST BENNETT.