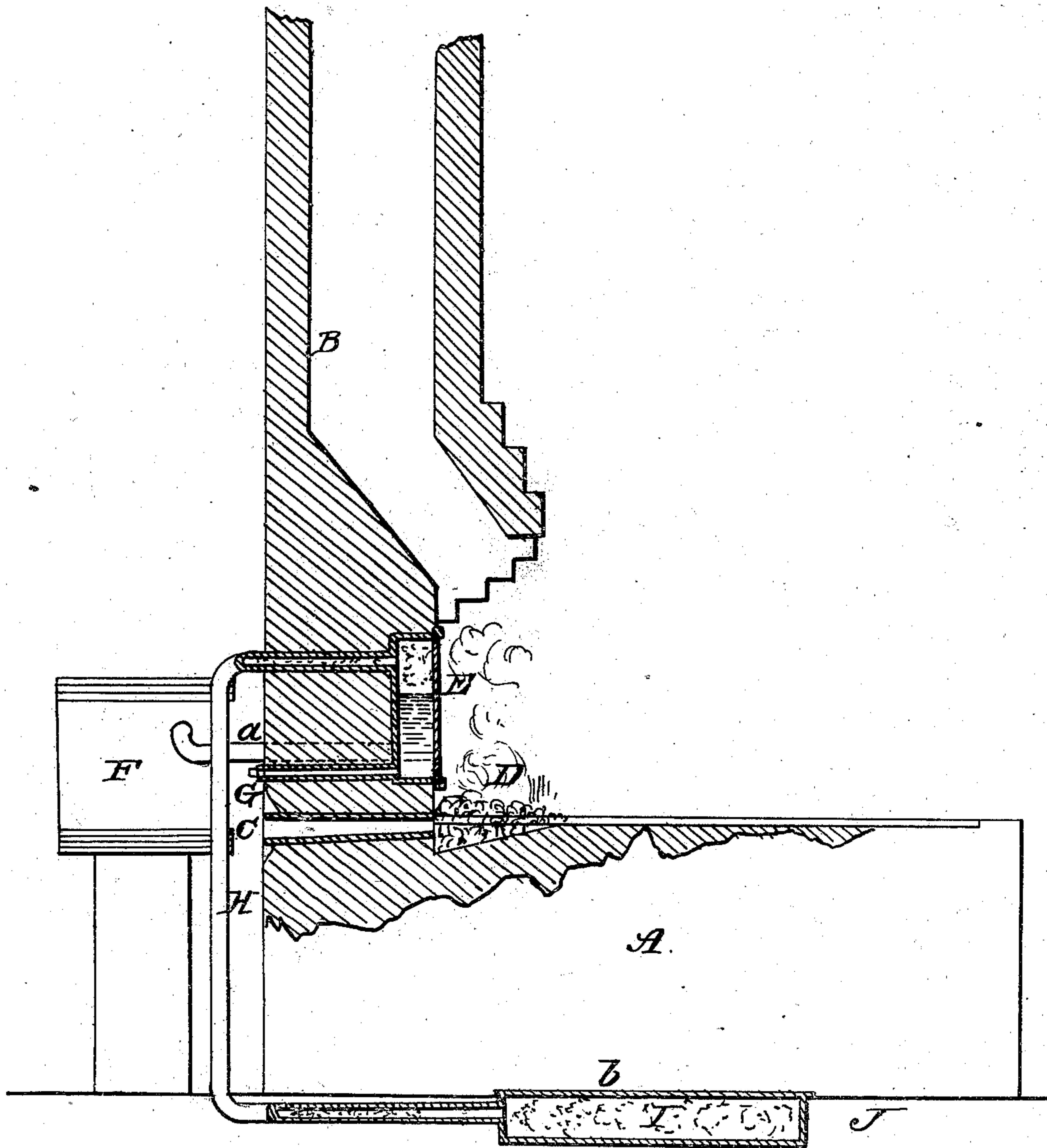


G. W. SMITH.

Foot Warmer.

No. 21,376.

Patented Aug. 31, 1858.



UNITED STATES PATENT OFFICE.

GEORGE W. SMITH, OF AURORA, INDIANA.

FOOT-WARMING DEVICE.

Specification of Letters Patent No. 21,376, dated August 31, 1858.

To all whom it may concern:

Be it known that I, GEORGE W. SMITH, of Aurora, in the county of Dearborn and State of Indiana, have invented a new and
5 useful Foot-Warming Device to be Applied to Forges; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawing, making a part of this
10 specification, said drawing being a side sectional elevation of a forge with my improvement applied to it.

This invention consists in having a chamber or box placed in the ground or below
15 the flooring adjoining the forge and the place where the operator or workman stands, said chamber or box, being supplied with steam generated in a water twyer, if such twyer be used, or if such twyer be not
20 employed a tank is inserted in the wall of the forge so that steam will be generated therein by the heat of the forge and the chamber or box on which the operator stands be supplied and heated with steam
25 therefrom.

To enable those skilled in the art to fully understand and construct my invention I will proceed to describe it.

A, represents the base of the forge constructed of masonry.

B, is the chimney; C, the twyer iron; D, the fire.

E, is a chamber or box constructed of metal and fitted in the masonry, just at the
35 back of the fire. This chamber or box is a boiler and it is supplied with water by a pipe *a*, from a wooden tank F, at the back of the forge, the pipe *a*, communicating with the lower part of the boiler.

40 G, is a pipe which is connected to the lower part of the boiler and by which water may be drawn from the boiler when necessary.

45 H, is a pipe the upper end of which communicates with the upper part of the boiler E. This pipe passes downward into the ground J, or underneath the flooring and communicates with a chamber or box I, the upper surface or cover *b* of which is "flush"

with the ground or flooring J. The cover
50 *b*, of box I, should be of metal or other material which is a good conductor of heat. The chamber or box I, is placed by the base A, at a point where the workman stands.

When the forge is in use steam will be
55 generated in the box or boiler E, and said steam will be conveyed by the pipe H, to the chamber or box I, which will be heated thereby and serve to keep the feet of the workman warm and comfortable.
60

This is a useful invention, for forges are always in exposed places and in winter workmen have hitherto been very liable to contract severe colds owing to the unequal temperature to which their persons are ex-
65 posed, the body being exposed to a hot fire and their feet being upon damp ground and the sudden changes from heat to cold owing to the varying intensity of the forge fire, it sometimes being extremely hot, and then
70 again getting quite low, while the work is being forged.

The chamber or box I, being of uniform or nearly uniform temperature will keep the feet warm at all times when the forge is
75 in use, and it will thereby tend to keep the body at a more uniform temperature than usual.

In cases where a water twyer is used, the steam may be taken from that, the boiler E,
80 being only employed in the absence of such twyer.

I do not claim broadly and irrespective of the arrangement and adaptation herein shown and described the use of a steam
85 chamber for heating purposes but,

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

The employment or use of the chamber I,
90 when applied to a forge and heated by steam generated within a box E, or its equivalent, by the fire of the forge substantially as described.

GEORGE W. SMITH.

Witnesses:

E. REYNOLDS,
N. STEDMAN.