

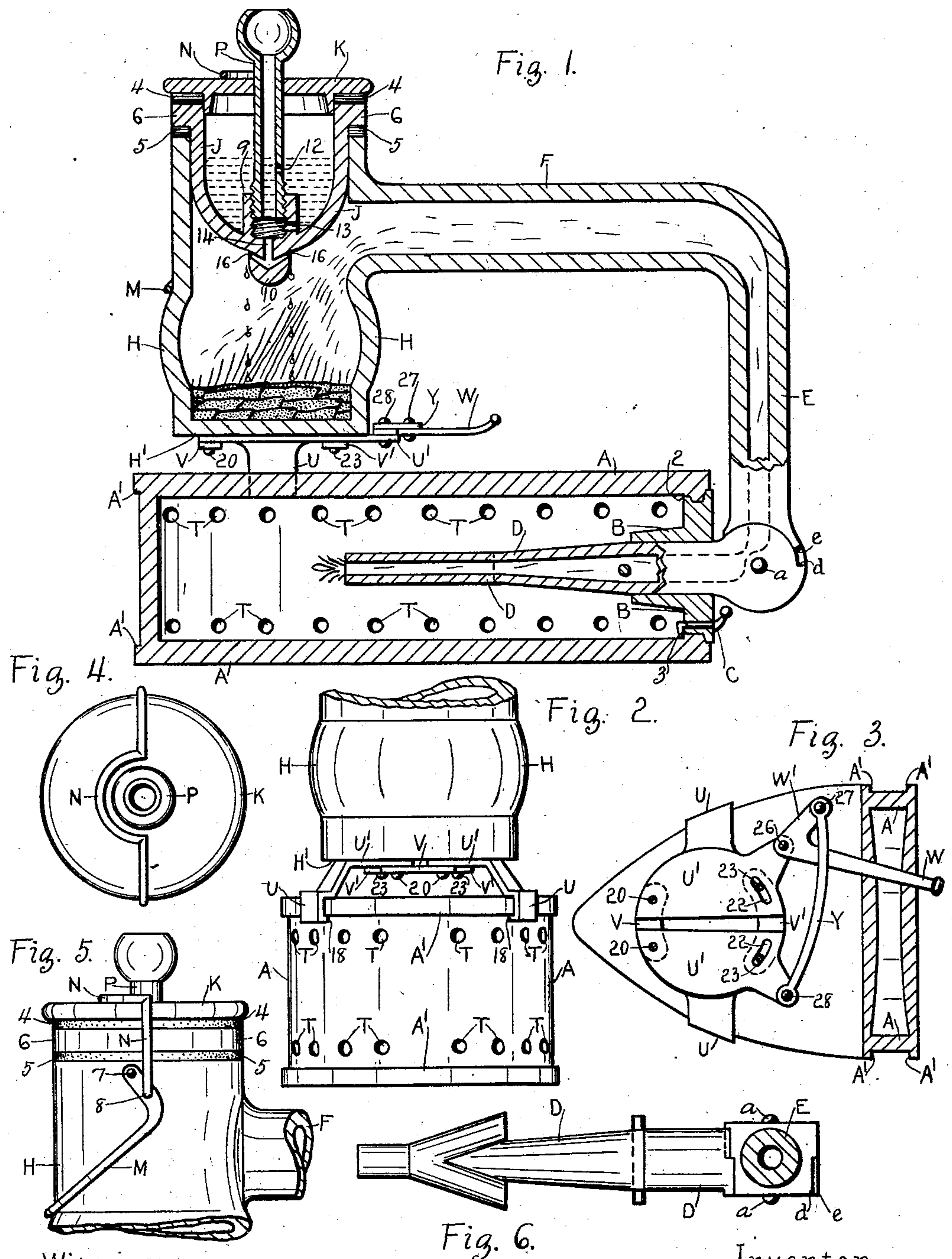
No. 705,248.

Patented July 22, 1902.

J. JONES.
SMOOTHING IRON.

Application filed Sept. 20, 1901.)

(No Model.)



UNITED STATES PATENT OFFICE.

JOE JONES, OF SUMMIT, MISSISSIPPI.

SMOOTHING-IRON.

SPECIFICATION forming part of Letters Patent No. 705,248, dated July 22, 1902.

Application filed September 20, 1901. Serial No. 75,793. (No model.)

To all whom it may concern:

Be it known that I, JOE JONES, a citizen of the United States, residing at Summit, in the county of Pike and State of Mississippi, have invented certain new and useful Improvements in Smoothing-Irons; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improved smoothing-iron of suitable material heated by means of gas generated from calcium carbide in the smoothing-iron.

The objects of my invention are, first, to provide a smoothing-iron which is capable of being heated by means contained in itself and said heat retained for a proper period of time; second, to provide a smoothing-iron which shall be free from any matter that is detrimental to the clothes being ironed and without any obnoxious odor; third, to afford facilities for the renewal of the heating matter, and, fourth, to provide means to allow the iron to be reversed. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a sectional side elevation of the smoothing-iron, showing the water and the carbide and means for heating in their respective places and positions. Fig. 2 is an end elevation of the iron from the front, showing particularly the clamps which fasten the carbide-chamber part of the iron to the iron proper. Fig. 3 is a plan of the clamping mechanism in clamped position on the iron, the carbide-chamber part being removed. Fig. 4 is a plan of the cover of the water-reservoir, showing wire fastenings. Fig. 5 is a side elevation of the fastening of the cover of the water-reservoir, and Fig. 6 is a plan of the gas-burner connected to the lower end of the handle extension.

Similar characters refer to similar parts throughout the several views.

In the drawings the chambered smoothing-iron is indicated by A and its rear end opening by 2, in which is inserted the removable bushing B, which is retained in position by the fastening C. This fastening is capable of being revolved in said bushing B by means

of its outer handle, and its inner catch 3 engages with the inner part of the iron A to lock the bushing in position. The horizontal burner-pipe D is supported by the bushing B, and the iron A, together with its secured end bushing B, is capable of revolving on said burner-pipe D. The downward hollow elbow extension E of the hollow handle F is pivotally connected to the outer end of the burner-pipe D by means of the central pivotal pin a, which allows the carbide-chamber, together with the handle part, to lift up a certain distance in order that the iron A may be reversed. The calcium-carbide chamber is formed by the circular wall H and its base H'. The handle F is connected to the upper and rear part of the wall H of the carbide-chamber. The removable water-reservoir J has an egg-shaped bottom and fits into the upper part of the circular wall H of the carbide-chamber and the said lower part of the water-reservoir must be in position to allow free and unobstructive gas-passage from the gas-generating carbide-chamber to the hollow handle F. Hence it will be noticed that there is free gas communication from the carbide-chamber to the burner D.

The top of the water-reservoir J is provided with a removable cover K with inner flange, which fits snugly in the reservoir, and the water-reservoir fits snugly in the upper part of the carbide-chamber. A rubber washer 4 fits between the cover K and the top or flange 6 of the water-reservoir, and a rubber washer 5 fits between said flange 6 and the top of the wall H of the carbide-chamber. To secure this cover K and the water-reservoir in position, a loop-lever M is pivoted at 7 to both sides of the upper part of the wall H, and a curved strap N passes over the top of the cover K. The two ends of said strap are pivotally connected to the sides of the loop-lever M at 8, so that when said lever M is brought downward to position, as shown in Fig. 5 of the drawings, the said strap N is in consequence brought downward and the upper transverse and curved part of the strap bears on the cover K and secures the cover and the water-reservoir in position, as shown in Figs. 1, 4, and 5 of the drawings. To release the cover in order to remove the cham-

ber J for the insertion of carbid and cleaning purposes, it is necessary to lift the loop-lever M, and the upper part or transverse curved part of the strap N relaxes its hold, and the chamber J may then be removed.

The lower and inner part of the reservoir J has a central hub 9, and the lower outer part of said reservoir has a central teat 10, which extends into the carbid-chamber. A vertical water-conducting tube and water-regulator P passes through a central opening of the cover K, and the lower end of said tube screws into the hub 9. The lower end of the tube P is closed, and the upper end is bowl-shaped to receive water easily and also to take hold of in order to screw and unscrew the tube into and partly out of the hub 9 when regulating the flow of water to the carbid.

The tube P has an aperture 12 above the hub 9 to allow the water to enter the reservoir J from the tube P. The lower part of the hub 9 has one or more openings 13 to allow the water from the reservoir J to pass through the central opening 14 of the lower end of the reservoir J, and thence through small oblique water-ducts 16 in said teat to drop continuously on the carbid to generate the gas. The source of the ducts 16 is lower than their outlet. This feature prevents the gas from disturbing the equal and continuous flow of water through said openings and ducts. The tube P is capable of regulating the flow of water through the opening 13, also when the tube P is screwed down to the bottom of the hub 9 the water-supply is cut off.

The chambered smoothing-iron A is supplied with side air-ducts T, that the elements of gas and air may be consumed. The top and bottom of the iron A is thicker toward and at the middle than at the sides to counteract any possible accumulation of foul air in the iron.

To secure the carbid-chamber to the upper and forward part of the iron A clamps U, with under inner projecting lips 18, are provided. These clamps are pivoted to the under side of the base H' of the carbid-chamber at 20 and 20. (Shown in Fig. 3 of the drawings.) The pivotal plates U' of the clamps U are retained in slidable position against the base H' of the carbid-chamber by means of lower segmental plates V and V', which are rigidly secured to the said base H' in such a manner that the plates U' may be free to slide between the plates V and V' and the base H'. The slidable plates U' have segmental slots 22 to allow said plates to slide on the studs 23, which secure the under plate V' to the base H'. The clamps U are shown in closed position against the flange A' of the iron A. The lips 18 of the clamps fasten underneath the flange A' and hold the carbid-chamber H securely to the iron A.

The clamp-plates U' are connected together

by means of a hand manipulating-lever W, with arm W', which is fulcrumed to one of the plates U' at 26, and a curved transverse rod Y, one end of which connects to the arm W' of said lever W at 27, and the opposite end of said rod Y connects to the opposite plate U' at 28. To release the clamps U from the iron A, the lever W is brought toward the center of the iron A, and at this time the plates U', together with their clamps U, widen out and release the clamps from the iron A. This releasing of the smoothing-iron A is to allow the same to revolve one-half revolution in order that the top of the iron A, which has been heating, may be brought to the bottom for ironing purposes. The top and the bottom of the iron A are identical and either may be used, the top being gradually heated while the bottom is gradually cooling. In reversing the iron A from top to bottom it is necessary to free the clamps U from the iron A. This is accomplished by means of the pivotal connection α at the lower part of the handle elbow extension E, previously referred to, which allows upward movement of the carbid-chamber, together with its connected parts, until the lip e on the extension E engages the lip d on the gas-pipe D.

The operation of heating the iron is as follows: The carbid is placed in the carbid-chamber. Water is poured into the tube P. The water then passes through the aperture 12 and into the reservoir J, thence through the regulated opening 13 and through the opening 14 and through the oblique water-ducts 16 and drops on the carbid. At the contact of the water and the carbid gas is generated. The gas then proceeds through the hollow handle F and downward through the elbow extension E, and thence through the burner D. A light may then be applied to the burner through one of the air-ducts T of the iron A.

Various changes in the form, proportion, and minor details of this invention may be resorted to without departing from the spirit and scope thereof. Hence

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a smoothing-iron, a carbid-chamber, clamps on the base of the chamber, a bushing secured in the rear end of the iron, a gas-burner pipe in said iron and extending through said bushing, a handle communicating with the carbid-chamber and with the outer end of said pipe, and pivotally connected thereto, said iron capable of revolving on said pipe and means for contracting said clamps to the iron, substantially as described and set forth.

2. The combination of a carbid-chamber, clamps pivotally connected to the under side of said chamber, a reversible smoothing-iron, a bushing secured in the rear end of the iron, a gas-pipe in the iron and protruding through

the rear end thereof, a handle with rear elbow extending from the carbide-chamber and pivotally connected to the protruding end of the gas-pipe, said iron capable of revolving
5 on said gas-pipe and means for opening and closing said clamps, substantially as described and set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JOE JONES.

Witnesses:

W. W. BRADSHAW,
JNO. C. COVINGTON.