

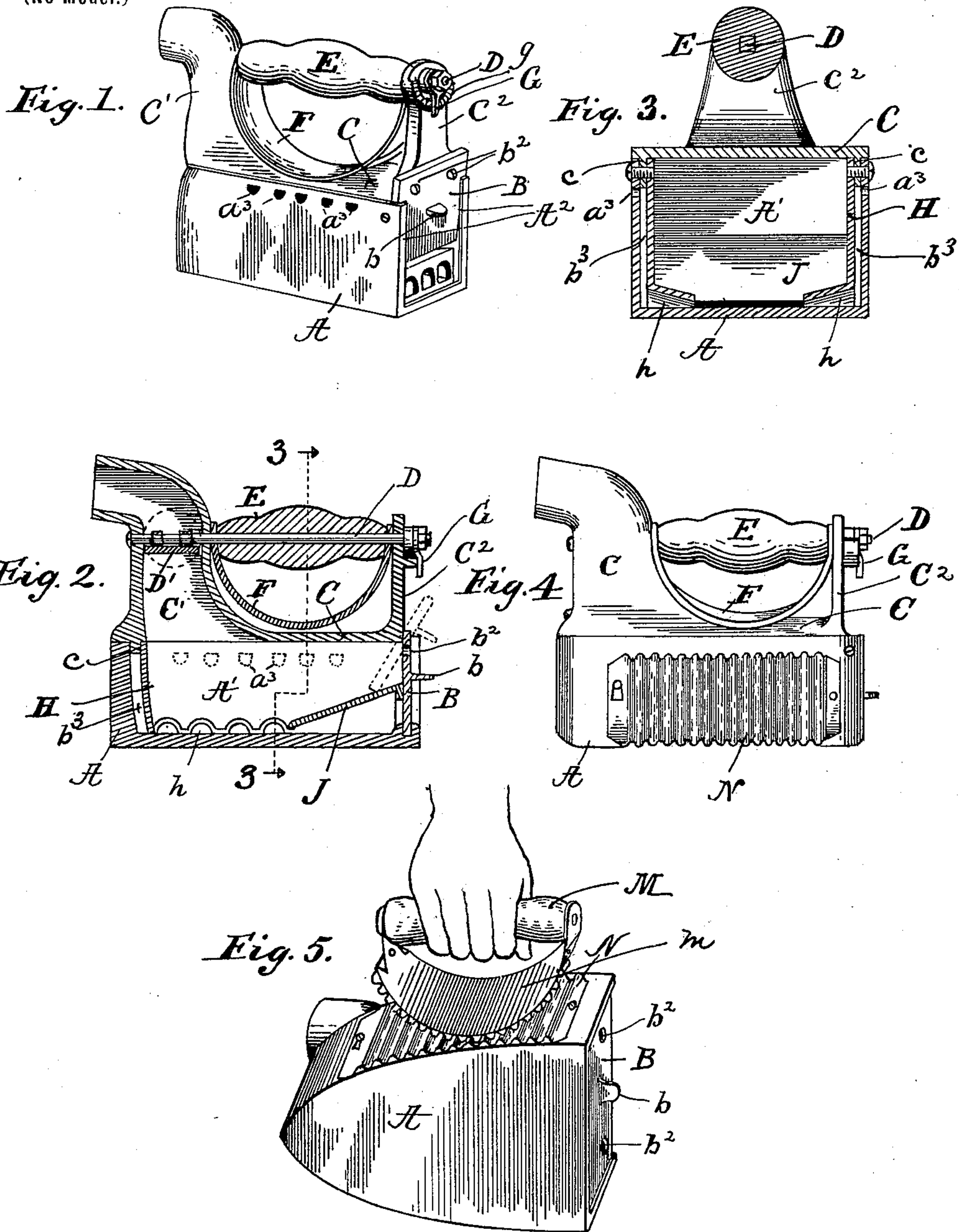
No. 607,376.

Patented July 12, 1898.

W. E. HOYT
SAD IRON.

(Application filed Jan. 21, 1898.)

(No Model.)



Witnesses
Carl Schlegel
& A. Muntz

Inventor
William E. Hoyt.
By Joseph A. Muntz
Attorney.

UNITED STATES PATENT OFFICE.

WILLIAM E. HOYT, OF NEW YORK, N. Y.

SAD-IRON.

SPECIFICATION forming part of Letters Patent No. 607,376, dated July 12, 1898.

Application filed January 21, 1898. Serial No. 667,475. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM E. HOYT, a citizen of the United States, residing at New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Sad-Irons, of which the following is a specification.

My invention relates to improvements in sad-irons; and one object of my invention is to provide a sad-iron which will embody within itself a chamber which will diffuse the heat properly to the iron, which will remain heated for a long period.

Another object of my invention is to provide a self-heating sad-iron which will embody a fluting device which will not render the iron cumbersome or inconvenient to handle and which fluting device will be thoroughly practical.

Another object of my invention is to provide a self-heating sad-iron in which the air to support combustion of the fuel contained in the iron is supplied from beneath at practically all points of the base and to provide means whereby the draft can be regulated by rotating the handle of the iron.

Another object of my invention is to provide a simple, practical, and durable iron which can be produced at a moderate cost.

I accomplish the objects of the invention by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a view in perspective of my sad-iron; Fig. 2, a vertical longitudinal sectional view thereof; Fig. 3, a transverse sectional view of the iron on the line 3 3 of Fig. 2; Fig. 4, a side view of the iron with the stationary fluting-plate applied, and Fig. 5 a perspective view of the fluting devices in operative positions to clearly show their manner of use.

Similar letters of reference indicate like parts throughout the several views of the drawings.

A represents the lower part or body of the iron, which is of usual shape or form and is made hollow to form a chamber A', having at one end the guides formed by a single outer flange A² at each side, against which is fitted and slides the door or gate B, having the handle b and air-openings b² near the top edge of the gate.

C is the top or cover of the iron, and has an under side flange c inside, from the edge of the top a distance equal to the thickness of the walls of the body A. This top C has the chimney C' and the upwardly-projected arm C² at the end opposite the chimney. D is a rod passing through the chimney and through the arm C².

D' is a plate mounted on the rod D inside of the chimney and rotating with the rod. When in a horizontal position, this plate closes the opening in the chimney and shuts off the draft. It can be turned to the vertical position shown by the dotted lines or any intermediate position, and in fact forms a damper whereby the air admission can be regulated.

E is a handle, which is mounted on the rod D between the chimney and the arm, and F is a plate to deflect the heat and protect the hand of the operator. The handle E can be rotated, but in so doing the rod also is rotated, which of course changes the position of the damper. The rod D is projected through the arm C², and on its end is an indicator G, which engages a notched sector g. Preferably the indicator will have a slight spring action, which will enable it to be moved from one notch to another by the exertion of sufficient force, but will also prevent the too free movement of the handle and damper. The indicator will be set with relation to the plate D' to indicate the position of the damper at all times.

H is an inside shell or lining for the combustion-chamber A', separated from the wall by the flange c of the top C. The space b³ thus provided between the parts A and H forms an air-passageway. The walls of the body A are provided with the openings a³ close to the top of said walls, through which air is admitted to the space b³, and the bottom of the shell is provided with the inwardly-projected base-flues h at intervals along both sides of the chamber, through which the air in the space b³ is discharged into the chamber. The rear end of the shell is provided with the integral inwardly-sloping transverse plate J, which extends from one wall to the other of the shell and forms a large end base-flue, through which air can be admitted in large

quantities by raising the gate B, but through which no air is admitted when the gate is down.

To heat the iron, fuel is placed on the base-flues *h*, plate J, and bottom of the chamber, and is ignited. By raising the gate, which may be held open by resting it on the top of the plate J, the reciprocating movement of the iron will force the air into the chamber and cause quick combustion, and after a good bed of live coals is secured the draft can be shut off by closing the gate and the damper in the chimney. The fire can then be kept just right by turning the handle and without the operator taking his hands off of his iron or stopping his work.

I provide in connection with my iron fluting devices which consist of the separate handle M, to which is connected the curved fluting-plate *m*, which operates in connection with the fluting-plate N, which plate N is secured to the side of the iron. When the iron is turned on its side for fluting, the ashes and coals are kept from falling out through the chimney by closing the damper-plate.

Having thus fully described my invention, what I claim as new, and wish to secure by Letters Patent of the United States, is—

1. The herein-described sad-iron having the hollow body or chamber with perforated side walls, the top resting on the side walls of the chamber and having an under side flange which fits inside of the walls of the body portion, and having a chimney for carrying off the products of combustion, a shell comprising vertical walls separated by the flange from the walls of the body and having inwardly-projected base-flues and an integral inwardly-sloping plate at its rear end, connecting the sides of the shell, and a sliding or movable door or gate in one end of the iron adapted to be tilted inward to rest upon the inclined plate of the shell, to allow the air to be fed

through the rear end of the iron as well as through the base-flues of the sides, as and for the purpose specified.

2. The combination with a sad-iron having a hollow combustion-chamber and a flue for the escape of the products of combustion, of a handle mounted on a rod supported by the iron and extending through the flue, and a damper mounted on the rod within the flue and changed in its position by rotating the handle, and an indicator on the handle-rod working in a notched segment, to show the position of the damper and prevent its too free action, substantially as specified.

3. The herein-described sad-iron having the hollow body or chamber with perforated side walls, the top resting on the side walls of the chamber and having an under side flange which fits inside of the walls of the body portion, and having a chimney for carrying off the products of combustion, a shell comprising vertical walls separated by the flange from the walls of the body and having inwardly-projected base-flues and an integral inwardly-sloping plate at its rear end connecting the sides of the shell, and a sliding or movable door or gate in one end of the iron adapted to be tilted inward to rest upon the inclined plate of the shell, to allow the air to be fed through the rear end of the iron as well as the base-flues of the sides, and a handle mounted on a rod carrying a damper within the chimney, said damper changed in its position by rotating the handle substantially as specified.

In witness whereof I have hereunto set my hand and seal, at Little Rock, Arkansas, this 10th day of January, A. D. 1898.

WILLIAM E. HOYT. [L. S.]

Witnesses:

EDWIN E. CROOK,
KATE S. PHILLIPS.