

UNITED STATES PATENT OFFICE.

ANDREW NAGEL, OF LA PORTE, INDIANA.

SAD-IRON HEATER FOR GAS OR GASOLINE STOVES.

SPECIFICATION forming part of Letters Patent No. 539,233, dated May 14, 1895.

Application filed January 19, 1895. Serial No. 535,453. (No model.)

To all whom it may concern:

Be it known that I, ANDREW NAGEL, a citizen of the United States, residing in La Porte, in the county of La Porte and State of Indiana, have invented a new and useful Improvement in Sad-Iron Heaters for Gas or Gasoline Stoves, of which the following is a specification.

This invention relates to an improvement in sad-iron heaters for gas and gasoline stoves. As these stoves and burners are ordinarily constructed it has been found to be inconvenient and difficult to heat sad-irons with them. If the flame be allowed to impinge directly upon the polished face of the sad-iron the result is to coat and discolor and injure the same; and when the sad-irons are set up around the flame it is difficult to place and remove them without burning the hand. Other plans have the objection that not sufficient heat is imparted, or the flame is dangerous to the clothing of the person using the sad-irons. In the present improvement I have overcome these difficulties and objections producing a device which may be used in combination with any of the ordinary gasoline or gas burner stoves, which will heat the sad-irons rapidly and effectually, which completely guards the user's clothing from danger of fire, which permits the placing and removal of the sad-irons without discomfort or burning of the hands, which may be quickly applied to or removed from the gas or gasoline stove, and which may be used comfortably even with that class of sad-irons which is provided with detachable wooden handles, and for the heating of which kind of sad-irons it is in fact especially designed as this class of irons is the most difficult to heat with gas or gasoline. The means I have devised for accomplishing these results, and which means comprise my invention, consist of a metallic chamber preferably cylindrical in form, open at the bottom, closed at the top by a hinged or removable lid, and having an intermediate cast-iron diaphragm or horizontal partition made solid enough to not warp or buckle under the action of the heat or sag under the weight of the sad-irons, so that the face of the sad-iron may always rest flat and evenly throughout its entire extent upon this surface; and which divides the whole into two

parts, a flame chamber and a heating chamber, said diaphragm having around its outer edge and next to the walls of the chamber a series of openings which may be closed at will by a movable valve plate, and which when open admit the heat of the burner from the flame chamber to the heating chamber containing a sad-iron or irons to be heated, but in such manner that the flame does not come into direct contact with the face of the sad-iron; and which valve when closed cuts off said heat from the chamber to permit the sad-irons to be removed with ease and comfort.

The construction of the apparatus as well as the nature of the invention will be better understood from the following description and claims, and the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a vertical section of the heater and a gasoline-burner, while Fig. 2 represents a section on line 2 2 of Fig. 1.

In said drawings A represents an ordinary gasoline or gas burner. B is the stove plate above the burner, and C one of the cooking holes.

D is the flame chamber of the sad-iron heater, which flame chamber may be conveniently cast in one piece of iron with the diaphragm or horizontal partition E.

F is the heater chamber, and G the lid or cover thereto which may if preferred be hinged as at g.

H is a movable ring or annular plate setting down upon the diaphragm E, and which diaphragm as shown in the drawings is countersunk to receive the ring. A series of holes *h* is pierced through the ring, and a corresponding series *e* through the diaphragm. The ring H is thus made to constitute a valve, damper or register for closing, opening or regulating communication between the chambers D and F. The handle *h'* of the ring H projects through the wall *f* of the chamber F so that the ring may be rotated and the apertures closed or opened from the outside.

J represents a sad-iron placed in the heater. It is one of the kind known in the market as "Mrs. Pott's Sad-Iron," which sad-irons are provided with a removable wooden handle. This wooden handle is indicated in the drawing of Fig. 1 in dotted lines. The drawings

show a heater which is adapted to receive but one sad-iron. I ordinarily prefer to make the heater large enough to receive at least three, so that two or three may be heated while one is in use.

The wall *f* of the chamber may be made of ordinary sheet iron, fitted at the bottom to the casting which forms the chamber D and fitted at the top to the cast ring *g'* which forms a seat for the cover G.

In operation I place the apparatus, consisting of the flame chamber D, the heater chamber F, partition E, &c., as above described, upon the gas or gasoline stove over the hole C and burner A so as to rest upon the stove plate B, the burner A being ignited. The sad-iron or irons are then placed in the chamber F resting upon the diaphragm E, the wooden handles of course being detached or removed. The cover G is then closed, and the register ring H adjusted by means of the handle *h'* so that the holes *h* are open, whereupon the heat from the burner comes freely up into the chamber F through these openings and by conduction also through the plate E, to the sad-iron, which speedily becomes heated. When it is desired to take out the sad-iron I close the opening *h*, open the cover G and the heated sad-iron may be readily removed without discomfort and without danger from the flame by using the wooden sad-iron handles.

By this simple apparatus sad-irons, even of the removable handle type, may be comfortably and safely handled and heated, rapidly

and without direct contact with the flame, by the heat from an ordinary gasoline or gas burner stove, and this will be found of great convenience to those persons who heretofore while using gas or gasoline stoves during warm weather for general purposes, have found it necessary to build a fire in the coal or wood burning stove when they desired to heat their sad-irons, especially the removable handle type.

I claim—

1. The sad-iron heater, consisting of chamber F having the diaphragm E and register or valve H, substantially as specified.

2. The sad-iron heater, consisting of the flame chamber D, the heater chamber F, the diaphragm E and the adjustable register or valve H, substantially as specified.

3. The sad-iron heater, consisting of the flame chamber D, the heater chamber F, the diaphragm E, the adjustable register or valve H and cover G, substantially as specified.

4. The sad-iron heater consisting of the flame chamber D, the heating chamber F, the diaphragm E, the adjustable register or valve H, with its openings arranged at the outer margin of the diaphragm, the cover G, and the centrally arranged burner A placed below the diaphragm, substantially as specified.

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Witnesses:

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