

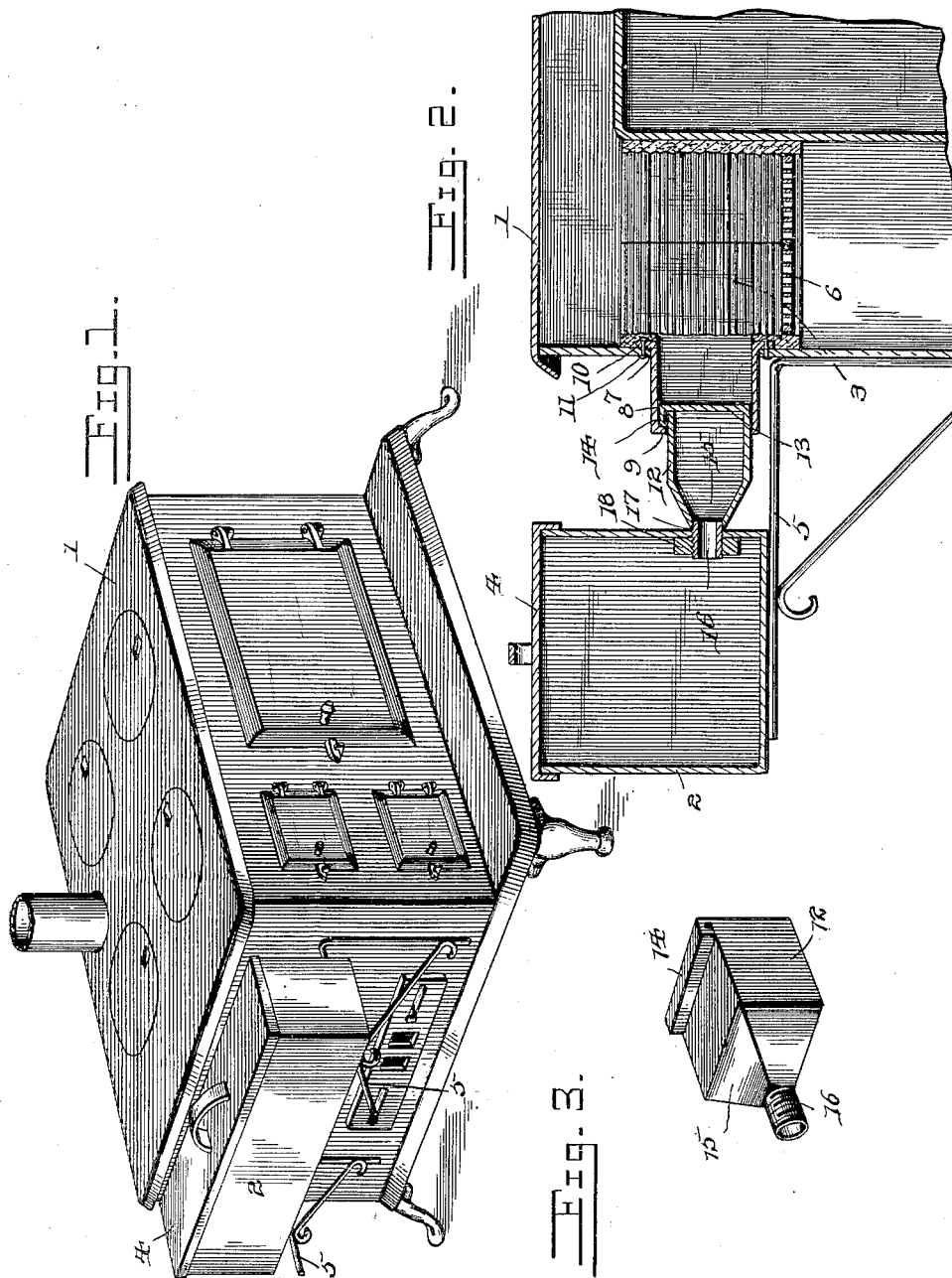
No. 649,798.

Patented May 15, 1900.

P. J. BEUGNOT.
WATER BACK FOR STOVES.

(Application filed Nov. 6, 1899.)

(No Model.)



Witnesses

F. C. Alden.

[Signature]

By *[Signature]* Attorneys.

Paul J. Beugnot

Inventor

[Signature]

UNITED STATES PATENT OFFICE.

PAUL J. BEUGNOT, OF PAULDING, OHIO, ASSIGNOR OF ONE-HALF TO
CHARLES F. DARE, OF SAME PLACE.

WATER-BACK FOR STOVES.

SPECIFICATION forming part of Letters Patent No. 649,798, dated May 15, 1900.

Application filed November 6, 1899. Serial No. 735,997. (No model.)

To all whom it may concern:

Be it known that I, PAUL J. BEUGNOT, a citizen of the United States, residing at Paulding, in the county of Paulding and State of Ohio, have invented a new and useful Water-Back for Stoves, of which the following is a specification.

This invention relates to water-backs for stoves and ranges, and has for its object to provide improved means whereby the water may be prevented from boiling and maintained at a comparatively-normal heat, so as to prevent excessive generation of steam, and thereby preclude the possibility of an explosion of the water-back. It is furthermore designed to apply the device exteriorly to any form of cooking-stove not already equipped with a water-back and without altering or changing the construction thereof, and finally to permit of the water-back being removed for cleansing or repairing and also when the water-supply has been cut off, so that in the latter event the water-back may not become burned out or damaged by the heat of the fire.

To these ends the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details of construction may be made within the scope of the protection prayed without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a perspective view of a common or ordinary cooking-stove equipped with the present invention. Fig. 2 is an enlarged detail sectional view of the water-back and the adjacent portions of the stove. Fig. 3 is a detail perspective view of the adjustable connection between the water-back and the stove.

Corresponding parts in the several figures of the drawings are designated by like characters of reference.

Referring to the accompanying drawings, 1 designates an ordinary cooking-stove, and 2 the improved water-back connected thereto.

In carrying out the invention it is designed

to provide an adjustable connection between the water-back and the fire-box 3 of the stove, so that the water-back may be adjusted toward and away from the fire-box, in order that the water may be heated more or less, as desired. The water-back is preferably in the form of a substantially-rectangular box of suitable width and depth and preferably equal in length to the end of the stove and is provided with a removable cover 4, so that access may be had to the interior of the water-back for the purpose of filling the latter and also for removing water therefrom.

It will be understood that the water-back is mounted at the fire-box end of the stove and is supported upon a pair of opposite brackets 5, provided upon the end of the stove, the upper portion of the brackets being located substantially on a level with the grate 6.

An opening 7 is provided in the end of the stove, so as to communicate centrally with the fire-box 3, and projecting outwardly from this opening is a substantially-rectangular housing 8, which is open at its inner and outer ends and provided at its latter end with an inwardly-projecting transverse stop-shoulder 9. In connecting this housing to the stove it is preferable to provide the inner end of the former with outwardly-projecting marginal flanges 10, which fit flush against the inner side of the end of the stove and secured thereto by suitable bolts or rivets 11.

Slidably mounted to telescope within the housing 8 is a hollow substantially-rectangular head 12, having its inner end 13 closed, and also provided at its latter end with an outwardly-projecting transverse shoulder 14 for engagement with the shoulder 9 of the housing, so as to prevent outward displacement or detachment of the slidable head. The outer end of this head is contracted, as indicated at 15, and also provided with an outwardly-projecting and interiorly-threaded nipple or hollow stem 16, which is designed to be detachably fitted through an opening 17, formed in the adjacent wall of the water-back. Fitted to the outer end of the stem, which projects a suitable distance into the interior of the water-back, is a nut 18 for engagement with the inner side of the water-back to de-

tachably connect the latter to the slidable head. From the foregoing description it will be apparent that the hollow stem 16 forms a water-passage from the water-back to the hollow head, so as to permit of a free circulation therebetween.

In the operation of the device the hollow head is normally located at the inward limit of its movement, whereby the closed end 13 is in contact with the fire contained in the fire-box and the water within the head is in its closest proximity to the fire. Should the water-supply to the water-back be cut off in any manner or should it be desired to prevent the water boiling, it is simply necessary to draw the water-back outwardly from the stove, which movement is permitted by reason of the slidable head 12 telescoping within the housing 8. When the water-back has thus been drawn outward, the inner closed end of the hollow head is out of contact with the fire, as indicated in Fig. 2, and the application of the heat to the water is greatly reduced. It will now be apparent that the stop-shoulders on the hollow head and the housing besides preventing displacement of the head also prevent the water-back from being accidentally displaced from the brackets 5, as the water-back is not permanently secured to the brackets.

Should it be desired to remove the water-back from the stove, the nut 18 is detached from the stem 16, whereby the water-back is free to be removed, and by reason of the closed inner end of the hollow head the housing still remains closed, so as to prevent accidental escape of the coals and ashes from the fire-box and also to prevent the ingress of air to the fire-box, which would tend to dampen the fire.

It will be apparent that any ordinary cooking-stove may be equipped with the present form of water-back simply by fitting suitable brackets to the fire-box end of the stove and forming an opening through the latter for the reception of the housing and without materially altering or changing the construction and arrangement of the stove.

Although the device has been shown and described as applied to a stove, it is manifest that it may also be applied to a range having a stand-boiler, and only requires the usual pipe connections between the water-back and the boiler, which connections may be readily applied without altering the device in any manner whatsoever.

What is claimed is—

1. The combination with a stove, having an opening formed through one side of the fire-box thereof, of an exteriorly-projecting housing fixedly connected to the walls or the opening in the fire-box, open at its outer and inner ends, and in communication with the interior of the fire-box, a hollow head, telescopically received within the housing and closed at its inner end, and a water-back removably connected to the head and in communication with the interior thereof.

2. The combination with a stove, having a fixed outwardly-projecting housing, which is open at its outer and inner ends and also in communication with the interior of the fire-box of the stove, and provided with an inner stop-shoulder, of a water-back, and a hollow head removably connected to and in communication with the interior of the water-back, said head being telescopically received within the housing, and provided with a stop-shoulder for engagement with the shoulder of the housing.

3. A water-back for stoves, comprising a box or like receptacle, a hollow head removably carried thereby and in communication with the interior thereof, and a housing separate from the box or receptacle, and open at opposite ends, one of which is adapted to communicate with a fire-box and the other to telescopically receive the said hollow head, and means for fixedly connecting the housing to a fire-box.

4. A water-back for stoves, comprising a box or like receptacle, a hollow head located exteriorly thereof, and having an exteriorly-threaded hollow stem projecting into the interior of the receptacle, a nut removably fitted to the hollow stem, bearing against the inner wall of the receptacle, and forming a detachable connection for the head, and a housing separate from the box or receptacle, and open at opposite ends, one of which is adapted to communicate with a fire-box, and the other to telescopically receive the said hollow head, and means for fixedly connecting the housing to a fire-box.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

PAUL J. BEUGNOT.

Witnesses:

CHAS. F. DARE,
B. F. MANDREUR.